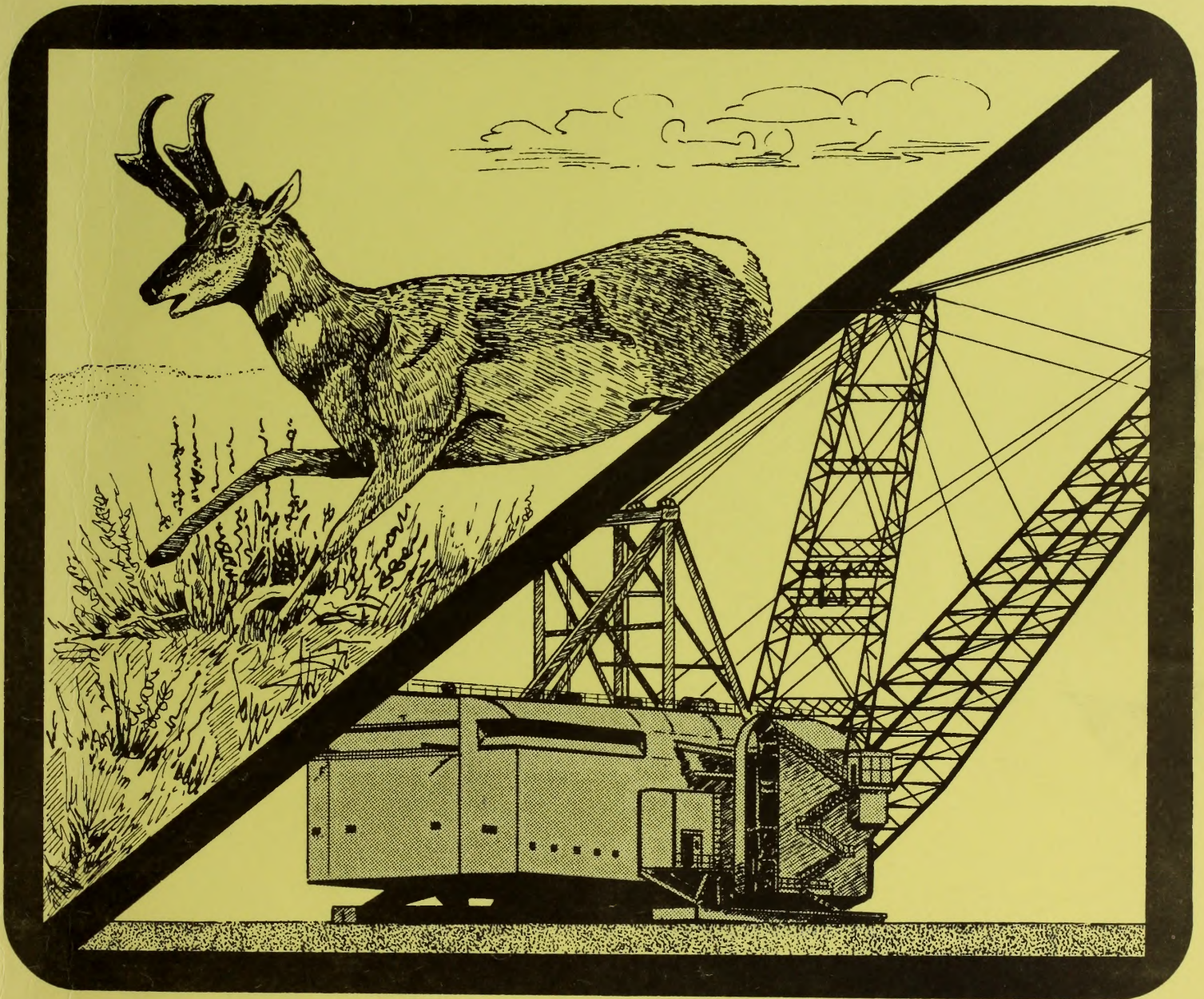


Southwest North Dakota Management Framework Plan

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June 1983



United States Department of the Interior
Bureau of Land Management
Dickinson District Office, North Dakota

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IN REPLY REFER TO:



United States Department of the Interior

BUREAU OF LAND MANAGEMENT

P.O. Box 1229
Dickinson, North Dakota 58602

HD
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1983

Dear Citizen:

The Bureau of Land Management (BLM), Dickinson District, is preparing a management framework plan (MFP) for six counties in southwestern North Dakota. This plan will guide the management of federal split-estate minerals and certain federal surface lands.

Please review the land use recommendations that are contained in the present document. To help the public understand these recommendations, our staff will hold two open-house meetings, two hours in length, on the following dates:

July 27 — Bowman — Four Seasons Building — 7:00 p.m. MDT
July 28 — Mott — classroom in the Armory — 7:00 p.m. MDT

We invite you to attend one of these meetings. The open-house approach will allow you to stop by when it is most convenient for you, and you will not have to sit through long presentations that may not interest you. Several of the resource specialists who worked on the Southwest MFP will be present at the meetings to answer your questions.

The open-house meetings will not serve as forums for persons wishing to offer oral testimony on the MFP. A separate hearing for persons who feel they may be adversely affected by the implementation of the MFP recommendations will be held August 17 in New England at the Memorial Hall, beginning at 7:30 p.m. However, at any time prior to the close of the comment period written comments on the Southwest MFP may be submitted to our office at P.O. Box 1229, Dickinson, ND 58602. The comment period for these recommendations ends August 19, 1983.

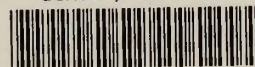
A separate comment opportunity is being offered for land base adjustment. Should you want to recommend specific ways that the BLM could adjust its surface land holdings in the area—either through sale, exchange, or transfer—please contact this office, and we will mail you a response form for land base adjustment.

If you wish to know more about the MFP recommendations and are unable to attend either of our meetings, please write to us or call us at (701) 225-9148. We also encourage you to visit our office, which is located on the Second Floor of the Gate City Building, 204 Sims Street, Dickinson.

Sincerely yours,

Reed L. Smith
District Manager

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northwestern Dunn County. The latter is known as the Lost Bridge Management Area and is included in the West-Central North Dakota Management Framework Plan. The former is known as the Big Gumbo Management Area and is included in the Southwest MFP (see Map 2).

OVERVIEW OF THE AREA

The Southwest MFP area includes Billings, Slope, Bowman, Hettinger, Adams, and Grant counties. In general, the area consists of rolling plains, with the Little Missouri Breaks (Badlands) occupying some of the western portion. The major stream basins within the area include Cedar Creek and the Grand, Cannonball, Heart, and Little Missouri rivers. The planning area is bounded on the south by South Dakota and on the west by Montana.

The population is largely rural. The larger towns are Bowman (2,071); Hettinger (1,739); Mott (1,315); New England (825); and Elgin (930). The county populations are: Billings 1,138; Slope 1,157; Bowman 4,229; Hettinger 4,275; Adams 3,584; and Grant 4,274. (All figures are from the 1980 census.)

The major industry in the area is agriculture, mostly in the form of dryland crops and livestock. Oil and gas exploration and development is prominent in the western portion of the planning area. Coal has been mined in the planning area since homesteading days. Most of the early mines produced very small amounts of coal for local heating use. These mines were operated by farmers and local businessmen and included both surface and underground operations. Most of the small surface mines and all of the underground mines were closed by the early 1960's. Underground mining in North Dakota is uneconomical and impractical because of such factors as federal safety regulations, overburden type, and mining costs.

BLM management responsibility varies throughout the area. For planning purposes there are three major categories of BLM jurisdiction, as shown in Table I. (The acres indicated for these categories are estimates.)

On the BLM surface, the BLM manages both the surface resources and all of the mineral rights. The consolidated lands known as the Big Gumbo Management Area (BGMA), have more potential for multiple-use management than do the small isolated tracts that make up the remainder of the surface lands; therefore, the BGMA was considered separately.

The second category, federal coal, is a major management responsibility for the BLM in the Southwest Planning Area. All of the federal coal under BLM jurisdiction with a high to moderate potential for development, except one 40-acre tract in Adams County, lies under privately owned surface. Throughout the planning area, federal coal is scattered among privately owned coal. Some of this federal coal has been reserved along with all other minerals, some has been reserved with one or more other minerals (such as oil and gas), and on some tracts only coal has been reserved to the government.

Some of the coal in the planning area is already under federal lease. These leased tracts are northwest of New Leipzig and around the Gascoyne Mine.

The third category of BLM planning responsibility involves federal split-estate oil and gas. As with coal, the federal oil and gas ownership occurs in three basic categories: alone, with one or more other minerals, or with all minerals reserved to the government.

Most of the BLM oil and gas in the planning area is already under federal lease, but only a small percentage of the leased areas ever reaches the point of test well or production development. This percentage is increasing, however. Leases expire after ten years if they are not being developed, and they can be terminated at any time if annual rental is not paid. After expiration, the lease areas are reviewed and may be reoffered for lease.

TABLE I
BLM PLANNING CATEGORIES
(Acreage Estimates)

County	BLM Surface	Federal Coal (BLM)	Federal Oil & Gas (BLM)	County Area
Billings	680	50,422	3,965	728,960
Slope	0	99,771	1,894	784,640
Bowman	32,808	198,639	28,435	748,800
Hettinger	0	238,137	8,152	726,400
Adams	80	107,982	5,635	633,600
Grant	604	97,366	13,455	1,070,080
Total	34,172	792,317	61,536	4,692,480

CHAPTER 1

INTRODUCTION

PURPOSE AND SCOPE OF THE MFP

This document contains land use recommendations for federal lands and resources in six counties of southwestern North Dakota (see Map 1). Public review of these recommendations is a key step in the preparation of the Southwest North Dakota Management Framework Plan (MFP). The Dickinson District Office of the Bureau of Land Management began work on this plan in April 1981 and will complete it by October 1983. The plan will guide the future management of federal coal, oil and gas, and certain federal lands.

The primary reason for preparing the Southwest MFP is to explore the possibility of leasing federal coal. In terms of acres involved and the potential impacts of implementing the land use decisions, lignite coal is the most significant federal resource in the planning area. Before the federal coal can be made available for leasing, a series of complex procedures must be accomplished. These procedures are described in the federal coal management regulations published in the *Federal Register* on July 19, 1979 (revised regulations published July 30, 1982). One such procedure is preparing a comprehensive land use plan. The Southwest MFP fulfills the requirements for this type of plan.

It is important to recognize that this MFP is not a land use plan for private, state, or other (non-BLM) federal agency resources. In the Southwest Planning Area federal mineral ownership is primarily split-estate (see Appendix A). In this situation the BLM administers part or all of the mineral estate but has no jurisdiction over the surface estate. Because the BLM does not manage the surface over these federal minerals, the MFP does not contain decisions for use of the surface per se.

Federal split-estate mineral acres are not consolidated neatly in the planning area. The federal mineral ownership is mixed in with non-federal minerals in a checkerboard pattern, or—where there is a low percentage of federal minerals—there is an irregular pattern.

Except for lands in western Bowman County referred to as the Big Gumbo Management Area, the surface lands administered by the BLM in the planning area are widely scattered, and management decisions are constrained by the limitations of small size (in terms of contiguous acres) and/or poor access. In the MFP this fragmented public ownership pattern will be referred to as “scattered tracts.”

BACKGROUND

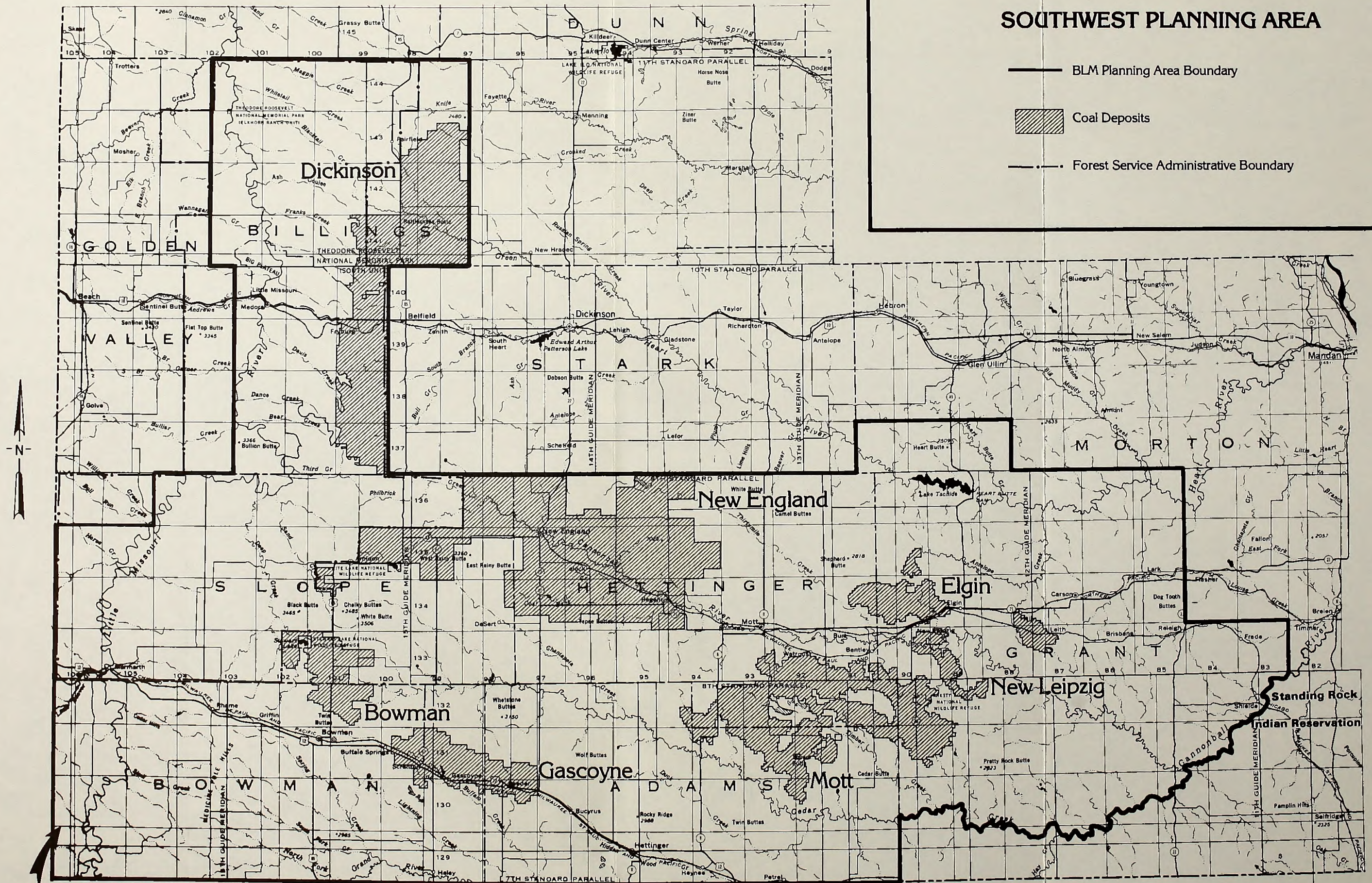
The Bureau of Land Management is responsible for the administration and management of millions of acres of federally owned lands and resources, primarily in the western states and Alaska. Most of these public lands include both the surface and subsurface rights; however, the BLM also administers federal mineral reservations that underlie private, state, or other federal agency ownership.

In North Dakota, the BLM administers approximately 5.9 million acres of split-estate mineral reservations and about 68,000 acres of surface lands (both surface and subsurface rights).

The BLM surface lands in the State are mostly small scattered parcels. There are only two areas in North Dakota where BLM surface lands form somewhat consolidated blocks: in western Bowman County and

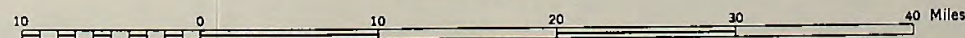
SOUTHWEST PLANNING AREA

- BLM Planning Area Boundary
- ▨ Coal Deposits
- - - Forest Service Administrative Boundary



BIG GUMBO MANAGEMENT AREA

SCALE IN MILES



Within the counties included in the Southwest MFP area, there is a large amount of land administered by the U.S. Forest Service (USFS). As the leasing agent for all federal minerals, the BLM actually issues any leases for minerals within USFS boundaries. However, since the USFS has the surface management responsibility, and mineral development affects the surface environment, the USFS will prepare the land use plan for federal minerals within USFS administrative boundaries (see Map 1) including split-estate mineral ownership (per 1980 Memorandum of Understanding between the Departments of Agriculture and Interior). The USFS also has planning responsibility for all federal oil and gas under surface lands administered by the USFS within the Little Missouri National Grassland.

PLANNING PROCESS OVERVIEW

Land use planning for the Southwest MFP consists of seven basic steps, which are summarized below. We are now at step 6. Each of these steps requires the use of an interdisciplinary team.

STEP 1:	Identification of Issues (see Appendix B)
Issues	The public is asked to help identify issues relating to BLM management in the area. Later steps will be guided by the issues that have been identified.
STEP 2:	Development of Planning Criteria (see Appendix B)
Criteria	Criteria are prepared to guide the development of the plan, and to ensure that the plan will be tailored to the issues previously identified. The criteria also help prevent unnecessary data collection and analysis.
STEP 3:	Inventory Data Collection
Inventory	This includes the gathering of resource, environmental, social, and economic data needed to prepare the plan.
STEP 4:	Analysis of the Current Situation
Analysis	Information on the human and natural resources within the planning area is organized and analyzed, with particular emphasis on BLM-administered resources.*
STEP 5:	Resource Staff Recommendations
In-house Recommendations	BLM resource specialists (such as geologists, and wildlife biologists) recommend to the District Manager how the public lands and minerals should be managed.

STEP 6: District Recommendations

Publication of Recommendations After reviewing the resource staff recommendations, the District Manager develops the official land use recommendations for the District. These recommendations are published for public review.

STEP 7: Land Use Decisions

Decision After evaluation of public comments, the plan is modified where necessary and adopted, and the land use decisions are published.

Most major planning issues identified through our scoping efforts are related to coal mining and are addressed in the plan. Other coal-related concerns will be addressed at the next level of planning, known as "activity planning." During activity planning these issues will be assessed in more detail, after potential leasing tracts have been identified.

New legislation and policies changed the planning approach of the Bureau from an MFP format to what is now called a resource management plan (RMP). During the planning "transition" the Southwest MFP was initiated.

An RMP integrates an environmental assessment of the potential impacts associated with a range of land use plan alternatives. The RMP is the product of an "issue-driven" planning process. Issue-driven planning means that only those aspects of current management direction that are felt to be issues are examined through the formulation and evaluation of alternative management actions.

The Southwest MFP incorporated elements of the RMP approach in that this planning effort was issue-driven. Public comments obtained through public meetings and brochures were used in the issue identification process. A number of energy-related and land management issues were identified, based on the judgment of the planning team, interagency consultation, and District Manager review.

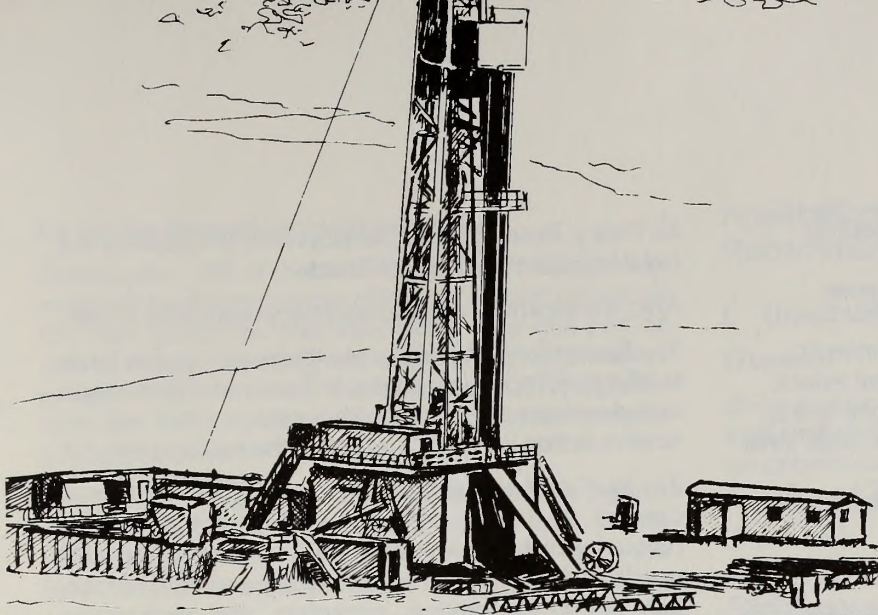
The direction to resolve issues in certain ways was provided by the Dickinson District Manager, based on existing policy, public desires, and resource capabilities. In addition, planning criteria were developed to guide the resolution of issues (see Appendix B). Impact assessments developed for major planning issues (such as agriculture) are contained in District planning documents, which are available for public review at the Dickinson District Office.

*This information is contained in various District planning documents which are available for public inspection at the Dickinson District Office.

DOCUMENT FORMAT

The recommendations for the Southwest MFP are presented in three basic categories: split-estate minerals, scattered tracts, and Big Gumbo Management

Area. These categories are further divided into specific BLM programs, such as coal and grazing. Preceding the recommendations, the overall objectives for the program are summarized. Each recommendation is followed by the rationale.



CHAPTER 2

FEDERAL SPLIT-ESTATE MINERALS

COAL

Background

For planning purposes the federal coal lands in the Southwest North Dakota MFP area are considered separately, by deposit. The deposits are defined by the boundaries of federal coal known to have a high to moderate potential for development by surface mining (see Appendix C). If an area has not been drilled (explored) for coal potential—or drilling information is not available to the BLM—that area could not be included in the MFP planning process. Coal mining potential constitutes the first screen used in analyzing federal coal lands.

The BLM uses four other screens to determine which coal lands should not be considered further for possible leasing. The areas not excluded constitute the areas acceptable for further consideration during “activity planning.” Within these acceptable areas, preliminary leasing tracts will be delineated for site-specific analysis. The four screens are addressed separately in the following general discussion and in the recommendations for each coal deposit.

I. Unsuitability Criteria

The twenty unsuitability criteria (see Appendix D) address a wide range of ecological and cultural features. If no exception to the criterion (mitigating measure) is possible, the affected lands are excluded from further consideration for coal leasing. The approach to be used in making the final decisions on exceptions will be based on conservation and economic efficiency. Mining should occur in a manner that will allow for the achievement of highest economic efficiency, greatest recovery of the coal resource (conservation), and minimal environmental damage. This goal can be achieved

by applying mitigating measures (exceptions) where allowable, acceptable, and feasible.

In some areas the application of exceptions to the criteria could not be addressed. It was too early in the process. Some exceptions can only be applied at either tract selection time or mining permitting time (or at both times), when more site-specific studies and analyses are possible.

II. Resource Trade-offs

The unsuitability criteria do not address all potential resource values that may be found in federal coal lands. All of the coal deposits were analyzed to see if there were any areas with unique, site-specific resources warranting protection by the resource trade-offs screen. In applying this screen the value of mining the coal must be balanced against the value of the resource affected.

III. Surface Owner Consultation

Letters were sent to persons owning the surface over federal coal in the identified deposits. They were asked their views (for, against, or undecided) regarding development of the federal coal under their land. If a significant number of landowners in an area were opposed to leasing the federal coal under their surface lands, the area was excluded (see Appendix E).

As a preliminary step in analyzing opposition, it must be determined if there is enough federal coal in an area (or if there is a particular distribution pattern) to control eventual development. If federal coal is not a controlling factor in an area, a determination of “significant numbers of landowners opposed” would not be meaningful.

The following are considered in determining if there is a significant number of landowners opposed.

1. Actual number of those opposed to leasing;
2. Acreage included under "opposed;"
3. Percentage of federal coal in the total area;
4. Distribution pattern of federal coal;
5. Distribution pattern of "opposed" comments;
6. Location and number of existing federal leases;
7. Location and number of preference right leases;
8. Number and location of private and state coal leases;
9. Number and location of surface lease agreements on lands over federal coal.

Also to be considered is ongoing coal development, if any, in a particular deposit. If there is large-scale coal mining in an area, results of surface owner consultation could not be used to exclude an area from further consideration, for it has already been included in an active mining area; therefore, surface owner consultation could have only limited significance. If mining is occurring in an area, it is usually in the public interest to lease the federal coal (barring the presence of environmental or other problems). Not leasing the federal coal would result in by-pass; that is, the federal coal might become an unmined island. Once by-passed, it would probably never be mined.

Even if an area is not excluded from further consideration as a result of surface owner consultation, landowners can still prevent the federal coal under their land from being leased. Landowners who qualify under the criteria of Public Law 95-87, Section 714—and who have not previously granted consent for mining—may prevent leasing simply by not giving consent (see Appendix E). Evidence of consent is not needed until shortly before the actual leasing would occur.

IV. Consistency With Other Land Use Plans

In land use planning and resource actions, the BLM strives to be as consistent as possible with plans of local, tribal, county, state, and other federal agencies. During preparation of the Southwest North Dakota MFP, no federal coal lands were excluded from further consideration for leasing on the basis of plan consistency.

COAL OBJECTIVES

Overall objectives of the BLM coal program are to: make federal coal resources available to meet present and future market demand; assure that mineral exploration, development, and extraction are carried out in such a way as to minimize environmental damage; receive fair market value for minerals subject to lease; and to provide for orderly and timely development of the resource.

The "Mining and Minerals Policy Act of 1970" declares it to be the policy of the federal government to encourage the development of the domestic minerals industry. In addition, the 1980 National Materials and Miner-

als Policy, Research and Development Act restates the need to implement the 1970 act.

Also, the recent BLM minerals policy mandates, in part:

1. Except for Congressional withdrawals, public lands shall remain open and available for mineral exploration and development unless withdrawal or other administrative action is clearly justified in the national interest.
2. BLM actively encourages and facilitates the development by private industry of public land mineral resources in a manner that satisfies national and local needs and provides for economically and environmentally sound exploration, extraction, and reclamation practices.
3. BLM will process mineral applications, permits, leases, and other use authorizations for public lands in a timely and efficient manner.
4. BLM's land use plans and multiple-use management decisions will recognize that mineral exploration and development can occur concurrently or sequentially with other resource uses. The Bureau further recognizes that land use planning is a dynamic process, and decisions will be updated as new data are evaluated.

ALL COAL DEPOSITS

General Recommendations

Recommendation: Issue licenses to mine coal to qualified applicants within those areas designated acceptable for further consideration for leasing. Each application will be assessed on its individual merits.

Rationale: As other energy supplies become more scarce, the demand for coal through licenses could increase. Such licenses are specifically authorized in Section 8 of the Minerals Leasing Act of 1920. They are strictly to provide for local domestic need for coal. Under the provisions of the regulations individuals or associations of individuals are allowed to mine federal coal for their own use. A license to mine may be issued to a municipality solely for the nonprofit mining and disposal of coal to its own residents. The Bureau may also authorize a recognized and established relief agency of any state to take federally owned coal within the state and provide it to families on its rolls who require the coal for household use but are unable to pay for the coal. These licenses do not require the payment of rentals or royalties. Any mining activities authorized by a license are subject to the Surface Mining Control and Reclamation Act.

Recommendation: Leave all federal coal lands in this planning area open for potential coal exploration. However, applications will be assessed and evaluated on a case-by-case basis. These specific evaluations will determine whether or not to allow exploration to occur and what mitigation should be required as a condition

for issuing the coal exploration license.

Rationale: All of the area has not been adequately explored to determine the exact nature and quality of the coal resources. This information is a vital part of overall energy planning, and only through exploration programs can we obtain that information. The exploration can occur without causing significant adverse impacts to the environment.

Recommendation: Maintain up-to-date lignite deposit boundaries as new information is acquired. Assess the new information periodically and revise the land use plan as appropriate.

Rationale: Planning is never totally complete until all resource information is available and has been analyzed. New data could require significant changes in the plan.

Recommendation: Proposed exchanges will be evaluated on a case-by-case basis.

Rationale: Exchanges may allow for improvements in the management of federal coal.

APPLICATION OF SCREENS

The following recommendations address the four exclusion screens discussed earlier. These recommendations are grouped according to coal deposit and type of screen. Deposit maps depict the effects of applying specific screens, as well as the cumulative effects. Tables following the recommendations for each deposit show the effects of screen application in terms of acreage and coal tonnage. In the summary section, the results of the screening process for all coal deposits are summarized.

ELGIN-NEW LEIPZIG DEPOSIT

Recommendation: All federal coal in this deposit is available for further consideration for leasing except for those lands excluded by the application of the following screens.

Rationale: The screening process described in the federal coal management regulations was applied to this coal deposit. Certain areas were excluded from further consideration for leasing upon the application of the required screens. Once these screens are applied and appropriate areas excluded, the remainder of the federal coal in the deposit is acceptable for further consideration for leasing.

Application of Screens: Recommendations

I. Unsuitability Criteria

General:

Recommendation: Do not exclude any federal coal lands from further consideration for leasing based on criteria numbers 1, 2, 4, 5, 6, 8, 9, 10, 11, 12, 13, 16, 17, 18, and 20.

Rationale: The Elgin-New Leipzig Deposit does not contain the resources or conditions addressed by these criteria.

Criterion 3: Buffer Zones along Rights-Of-Way and Adjacent to Communities and Buildings

Recommendation: The following areas are unsuitable for mining: lands within 100 feet of the outside line of the rights-of-way of public roads; within 100 feet of the cemeteries; and within 300 feet of occupied dwellings, schools, churches, community or institutional buildings, and public parks. The acreage of these areas was estimated in this plan (see Table II). However, these areas will be considered suitable pending further study during activity planning to determine more exact locations and to consider application of the exceptions and exemptions.

Rationale: These areas are numerous, small and randomly distributed throughout the deposit. Application of this criterion now could have a significant effect on the locations of logical mining units. It is more practical to apply this criterion when a smaller area is being considered during activity planning.

Criterion 7: Historic Land and Sites

Recommendation: No areas are excluded from further consideration for leasing at this time due to this criterion.

Rationale: No areas have been identified as being on or eligible for the National Register of Historic Places at this time; however, as further information is gathered at the activity planning and mine plan stages, areas could be identified as being unsuitable under this criterion.

Criterion 14 and 15: High-Priority Habitat for Migratory Bird Species of High Federal Interest and Fish and Wildlife Habitat Essential for Resident Species of High Interest to the State

Recommendation: Areas of high-priority habitat for migratory bird species of high federal interest and essential wildlife habitat for resident species of high interest to the State were identified through a habitat mapping process involving consultation with the U.S. Fish and Wildlife Service and North Dakota Game and Fish Department. Designate specific acreage unsuitable where it has been determined that these habitats cannot be mined without causing significant long-term

adverse impacts to the wildlife species in question. Designate as suitable with stipulations high-priority or essential habitats where restoration or replacement will prevent significant long-term adverse impacts to such species. The lease stipulations should require that such habitats be restored or replaced as agreed upon by appropriate state and federal regulatory agencies. Areas identified as unsuitable and suitable with stipulations are mapped in detail on 1:24,000 scale maps available for public inspection at the Dickinson District Office. Map 3 shows an approximation of these areas.

Rationale: Criteria 14 and 15 were considered jointly because analysis for each criterion was based on the same habitat mapping products, and because the migratory bird species of high federal interest were also considered by the State of North Dakota as species of high interest. It has been determined that those areas identified as unsuitable cannot be mined without causing significant long-term adverse impacts to the wildlife species in question, but the areas identified as suitable with stipulations can be mined and restored or replaced without causing significant long-term adverse impacts. It is assumed that reasonable stipulations for habitat restoration or replacement will be agreed upon which will not preclude mining in the areas identified as suitable with stipulations.

Criterion 16: Floodplains

Recommendation: The federal coal lands within the floodplain (100-year recurrence interval) of the Green River are unsuitable for mining. At this time floodplain boundaries have not been delineated, but Map 4 shows the approximate boundaries. The floodplain will be more precisely delineated during activity planning.

Rationale: Impacts cannot be adequately mitigated to prevent losses to downstream occupants of the floodplains.

Criterion 19: Alluvial Valley Floors

Recommendation: Alluvial valley floors (AVF) are unsuitable; however, since final delineation cannot be done until mining plan time, application of this criterion is deferred. Map 4 shows preliminary designations of AVF.

Rationale: Information is insufficient at this time to make final determinations on the AVF potentially associated with the Cannonball River. It has not yet been determined whether or not protection of this potential AVF is needed and to what extent. The maximum extent of unsuitability designation will not be more than that shown on Map 4.

II. Resource Trade-Offs

Recommendation: Areas with high concentrations of steep slopes (shown in Map 5) are unacceptable for further consideration for coal leasing.

Rationale: The breaks and buttes topography found in this area is a unique feature and has high aesthetic value to people living in North Dakota. The broken topography also limits the impact of agricultural disturbances, which enhances the opportunity for high-quality wildlife habitat. As a result of that, the areas are valuable for hunting. In order to assure the continued existence of these values and satisfy state reclamation laws, the areas would have to be returned to rough topography if they were mined. It would be very difficult to reconstruct steep topography in high concentrations, due to problems with slope stability and mining economics.

III. Surface Owner Consultation

Recommendation: Do not exclude from further leasing consideration any federal coal lands in the Elgin-New Leipzig Deposit on the basis of surface owner opposition.

Rationale: The opposition that was recorded was quite scattered and interspersed with private coal leases, federal coal leases, and surface lease agreements.

Appendix F contains consultation statistics, and Map 6 depicts opposition.

IV. Land Use Plan Consistency

Recommendation: Do not exclude any areas due to land use plans developed by other entities.

Rationale: No other land use plans that cover this area have been identified.

TABLE II
APPLICATION OF COAL EXCLUSION SCREENS
ELGIN—NEW LEIPZIG DEPOSIT

	Acres	Thousands of Tons
Total Coal In Deposit	47,490	483,200
Total Federal Coal In Deposit	14,620	158,700
Total Federal Coal Excluded From Further Consideration*	1,280	14,217

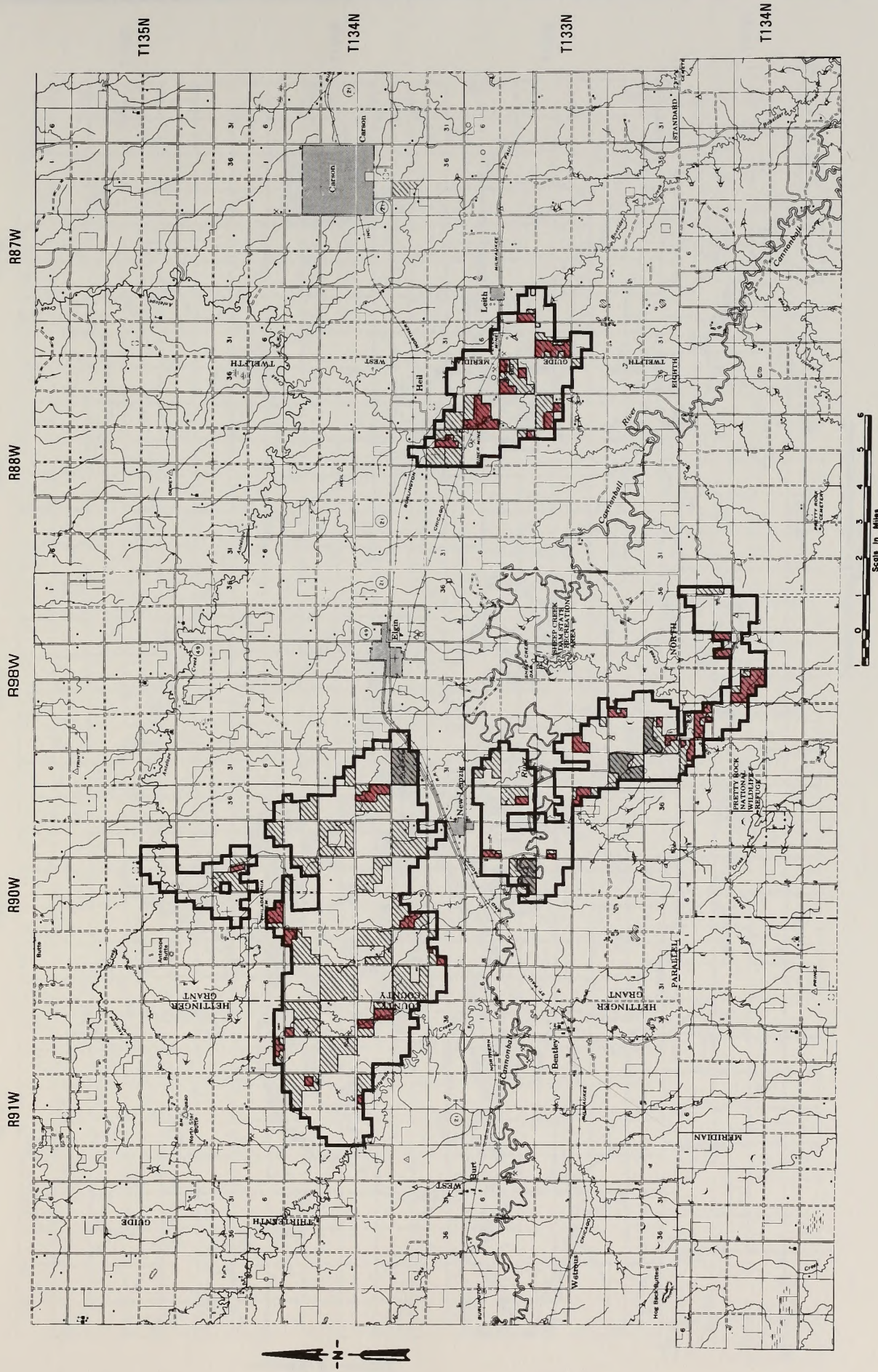
(See Map 7 for illustration of the above.)

EXCLUSIONS BY SCREEN

Unsuitability Criteria		
Criterion 3**	1,015	11,013
Criteria 14 and 15	1,280	14,217
Criterion 16	160	924
Criterion 19**	1,240	7,350
Resource Trade-Offs		
Slope	1,100	13,125
Surface Owner Consultation	0	0
Land Use Plan Consistency	0	0

*The sums of acreage and tonnage amounts for individual screens do not equal the total acreage and tonnage excluded, because some areas are excluded by more than one screen.

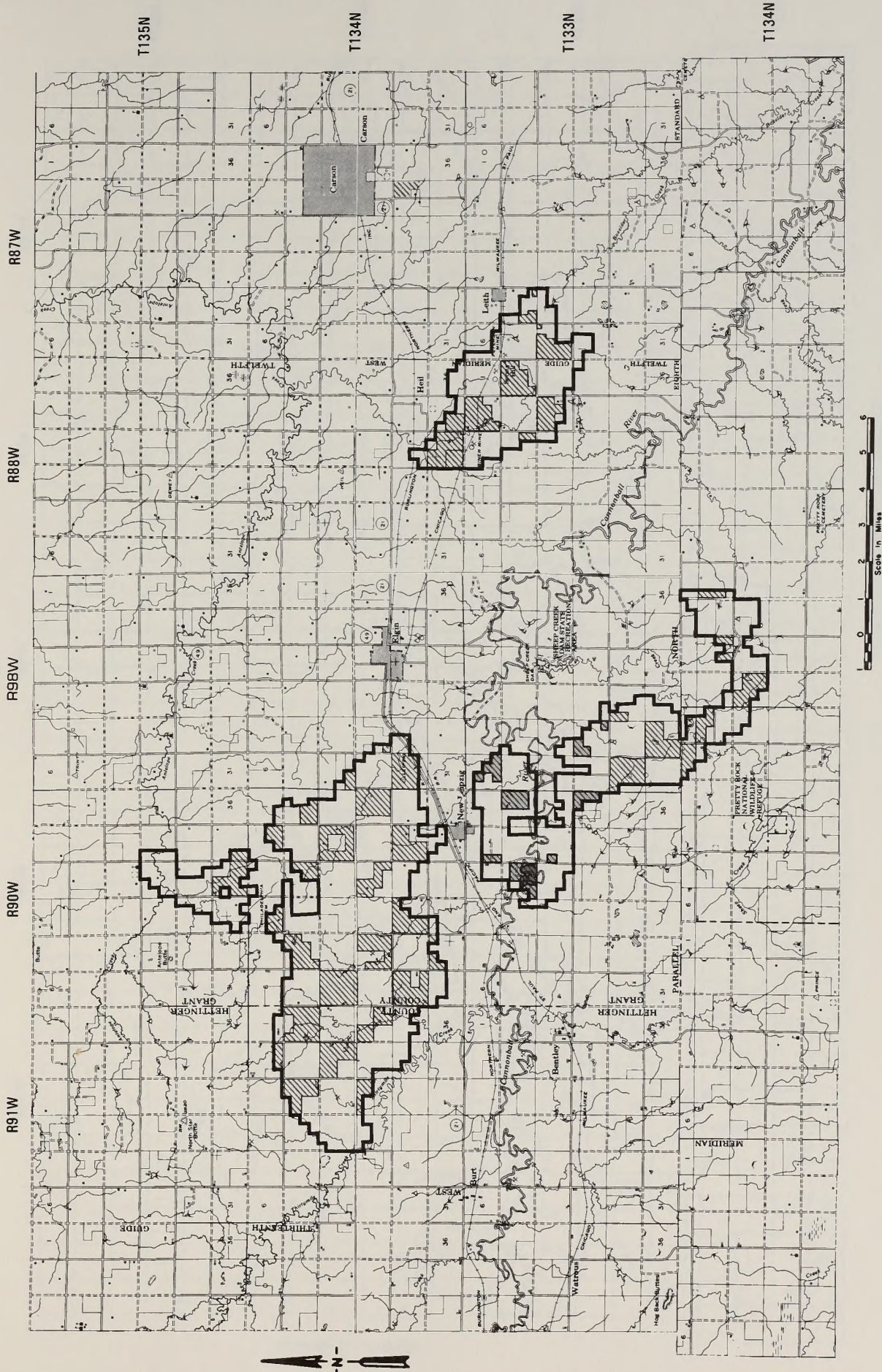
**Acreage and tonnage estimates for Unsuitability Criteria 3 and 19 are not included in the total area excluded from further consideration (see recommendations).



Elgin—New Leipzig Coal Deposit

Unsuitability Criteria 14 and 15

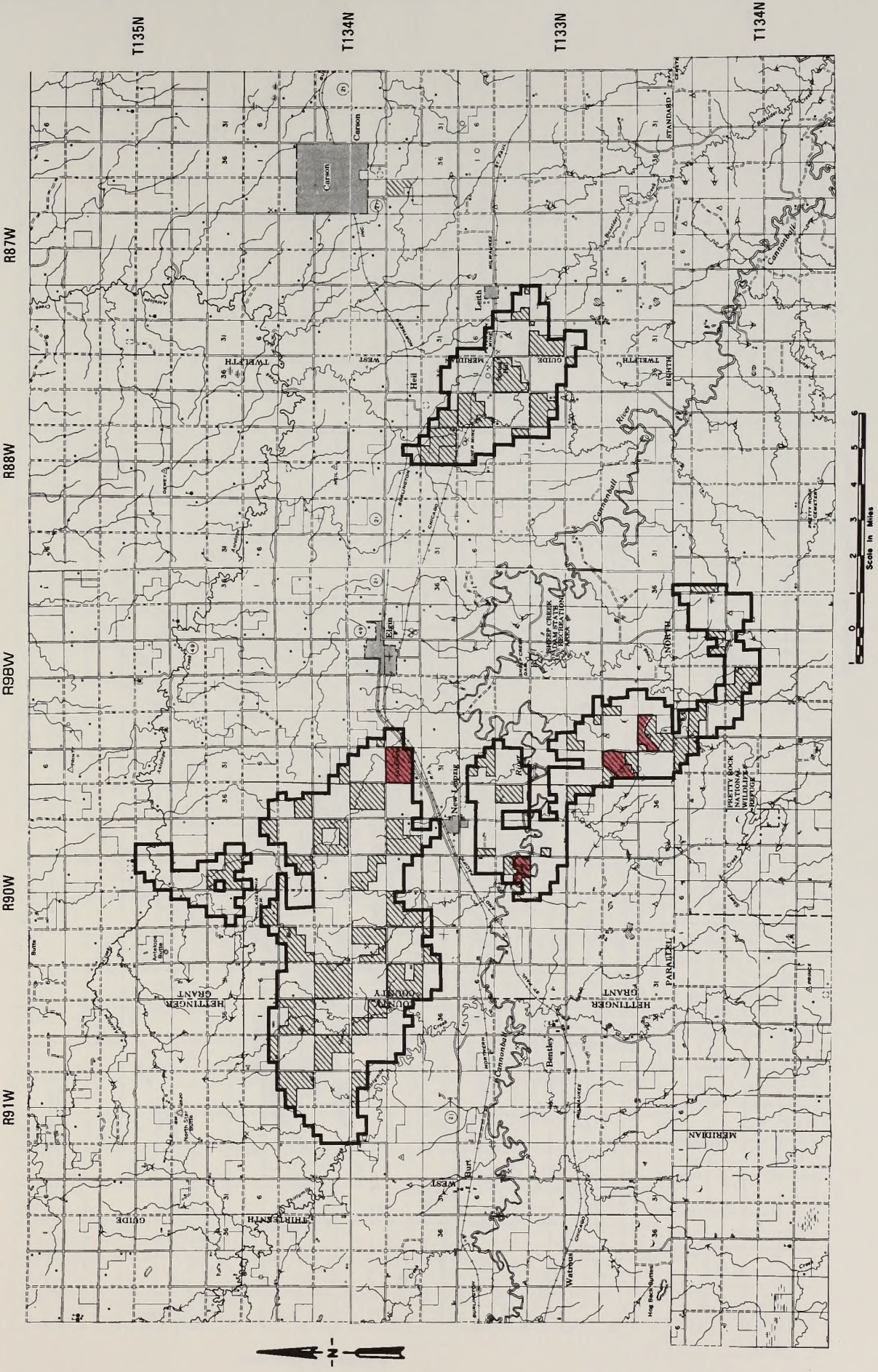
- Criteria 14 and 15: Wildlife—Unsuitable
- Criteria 14 and 15: Wildlife—Suitable with Stipulations
- Federal Coal Reservation



Elgin—New Leipzig Coal Deposit

Unsuitability Criteria 16 and 19

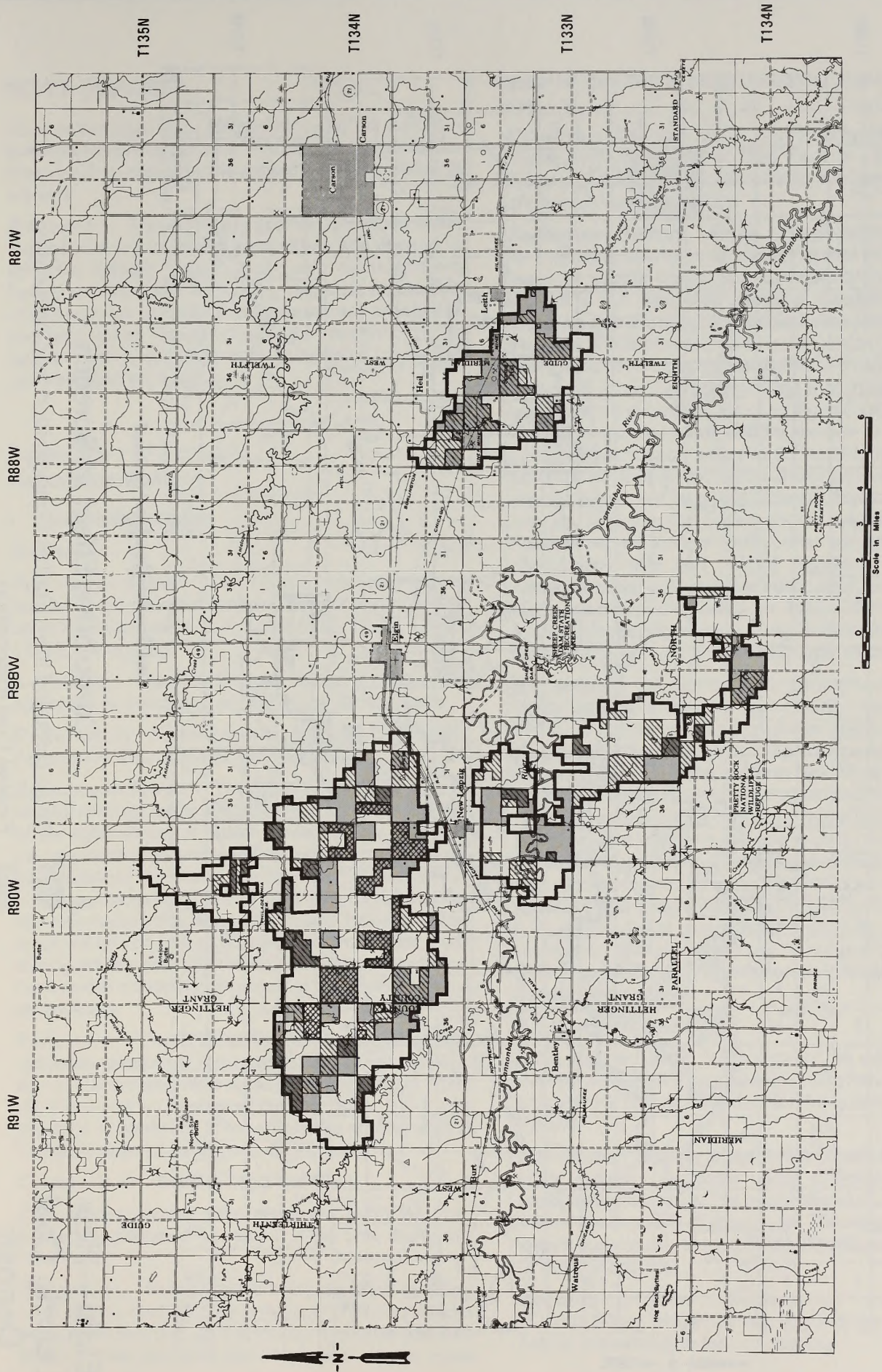
- Criterion 16: Floodplains
- Federal Coal Reservation
- Criterion 19: Preliminary Alluvial Valley Floor



Elgin — New Leipzig Coal Deposit

Steep Slopes

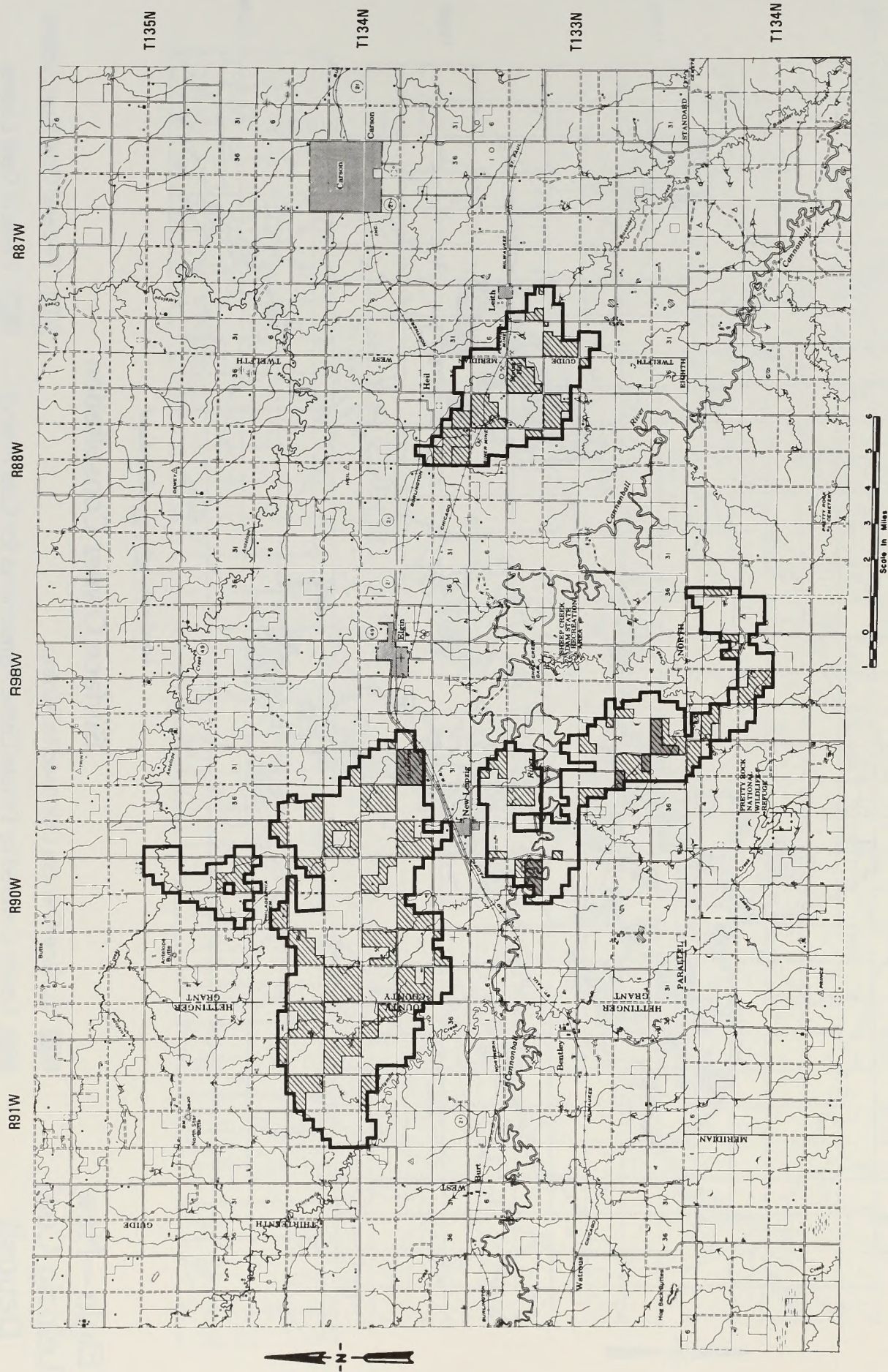
- High Concentration of Steep Slopes
- Federal Coal Reservation



Elgin — New Leipzig Coal Deposit

Surface Owner Consultation

- Surface Owners Opposed to Mining
- Lands Covered by Private Lease Agreements for Coal Mining
- Federal Coal Reservation
- Federal Coal Leases



MOTT DEPOSIT

Recommendation: All federal coal in this deposit is available for further consideration for leasing except for those lands excluded by the application of the following screens.

Rationale: The screening process described in the federal coal management regulations was applied to this coal deposit. Certain areas were excluded from further consideration for leasing upon the application of the required screens. Once these screens are applied and appropriate areas excluded, the remainder of the federal coal in the deposit is acceptable for further consideration for leasing.

Application of Screens: Recommendations

I. Unsuitability Criteria

General:

Recommendation: Do not exclude any federal coal lands from further consideration for leasing based on criteria numbers 1, 2, 4, 5, 6, 8, 9, 10, 11, 12, 13, 16, 17, 18, 19, and 20.

Rationale: The Mott Deposit does not contain the resources or conditions addressed by these criteria.

Criterion 3: Buffer Zones along Rights-Of-Way and Adjacent to Communities and Buildings

Recommendation: The following areas are unsuitable for mining: lands within 100 feet of the outside line of the rights-of-way of public roads; within 100 feet of the cemeteries; and within 300 feet of occupied dwellings, schools, churches, community or institutional buildings, and public parks. The acreage of these areas was estimated in this plan (see Table III). However, these areas will be considered suitable pending further study during activity planning to determine more exact locations and to consider application of the exceptions and exemptions.

Rationale: These areas are numerous, small and randomly distributed throughout the deposit. Application of this criterion now could have a significant effect on the locations of logical mining units. It is more practical to apply this criterion when a smaller area is being considered during activity planning.

Criterion 7: Historic Land and Sites

Recommendation: No areas are excluded from further consideration for leasing at this time due to this criterion.

Rationale: No areas have been identified as being on or eligible for the National Register of Historic Places at this time; however, as further information is gathered at the activity planning and mine plan stages, areas

could be identified as being unsuitable under this criterion.

Criterion 14 and 15: High-Priority Habitat for Migratory Bird Species of High Federal Interest and Fish and Wildlife Habitat Essential for Resident Species of High Interest to the State

Recommendation: Areas of high-priority habitat for migratory bird species of high federal interest and essential wildlife habitat for resident species of high interest to the State were identified through a habitat mapping process involving consultation with the U.S. Fish and Wildlife Service and North Dakota Game and Fish Department. Designate specific acreage unsuitable where it has been determined that these habitats cannot be mined without causing significant long-term adverse impacts to the wildlife species in question. Designate as suitable with stipulations high-priority or essential habitats where restoration or replacement will prevent significant long-term adverse impacts to such species. The lease stipulations should require that such habitats be restored or replaced as agreed upon by appropriate state and federal regulatory agencies. Areas identified as unsuitable and suitable with stipulations are mapped in detail on 1:24,000 scale maps available for public inspection at the Dickinson District Office. Map 8 shows an approximation of these areas.

Rationale: Criteria 14 and 15 were considered jointly because analysis for each criterion was based on the same habitat mapping products, and because the migratory bird species of high federal interest were also considered by the State of North Dakota as species of high interest. It has been determined that those areas identified as unsuitable cannot be mined without causing significant long-term adverse impacts to the wildlife species in question, but the areas identified as suitable with stipulations can be mined and restored or replaced without causing significant long-term adverse impacts. It is assumed that reasonable stipulations for habitat restoration or replacement will be agreed upon which will not preclude mining in the areas identified as suitable with stipulations.

II. Resource Trade-Offs

Recommendation: A portion of the watershed for the lake at Pretty Rock National Wildlife Refuge is unacceptable for further consideration for coal leasing (see Map 9).

Rationale: Wildlife refuge lands constitute a federal lands system, unsuitable under Criterion 1 of the unsuitability criteria. At this refuge the lake is an integral part of the purpose of the refuge. The watershed area shown is necessary to maintain the quality and quantity of water in the lake.

Recommendation: Areas with high concentrations of steep slopes (shown in Map 9) are unacceptable for further consideration for coal leasing.

Rationale: The breaks topography found in this coal deposit is a unique topographic feature and has high aesthetic value to people living in North Dakota. The broken topography also limits the impact of agricultural disturbances, which enhances the opportunity for large concentrations of high-quality wildlife habitat. As a result of that, the areas are valuable for hunting. In order to assure the continued existence of these values and satisfy state reclamation laws, the areas would have to be returned to rough topography if they were mined. It would be very difficult to reconstruct steep topography in high concentrations, due to problems with slope stability and mining economics.

III. Surface Owner Consultation

Recommendation: Do not exclude any federal

coal lands from further leasing consideration on the basis of surface owner opposition.

Rationale: The opposition that was recorded was quite scattered, and much of the deposit is covered by private coal leases and surface lease agreements for mining.

Appendix F contains consultation statistics, and Map 10 depicts opposition.

IV. Land Use Plan Consistency

Recommendation: Do not exclude any areas due to land use plans developed by other entities.

Rationale: No other land use plans that cover this area have been identified.

TABLE III
APPLICATION OF COAL EXCLUSION SCREENS
MOTT DEPOSIT

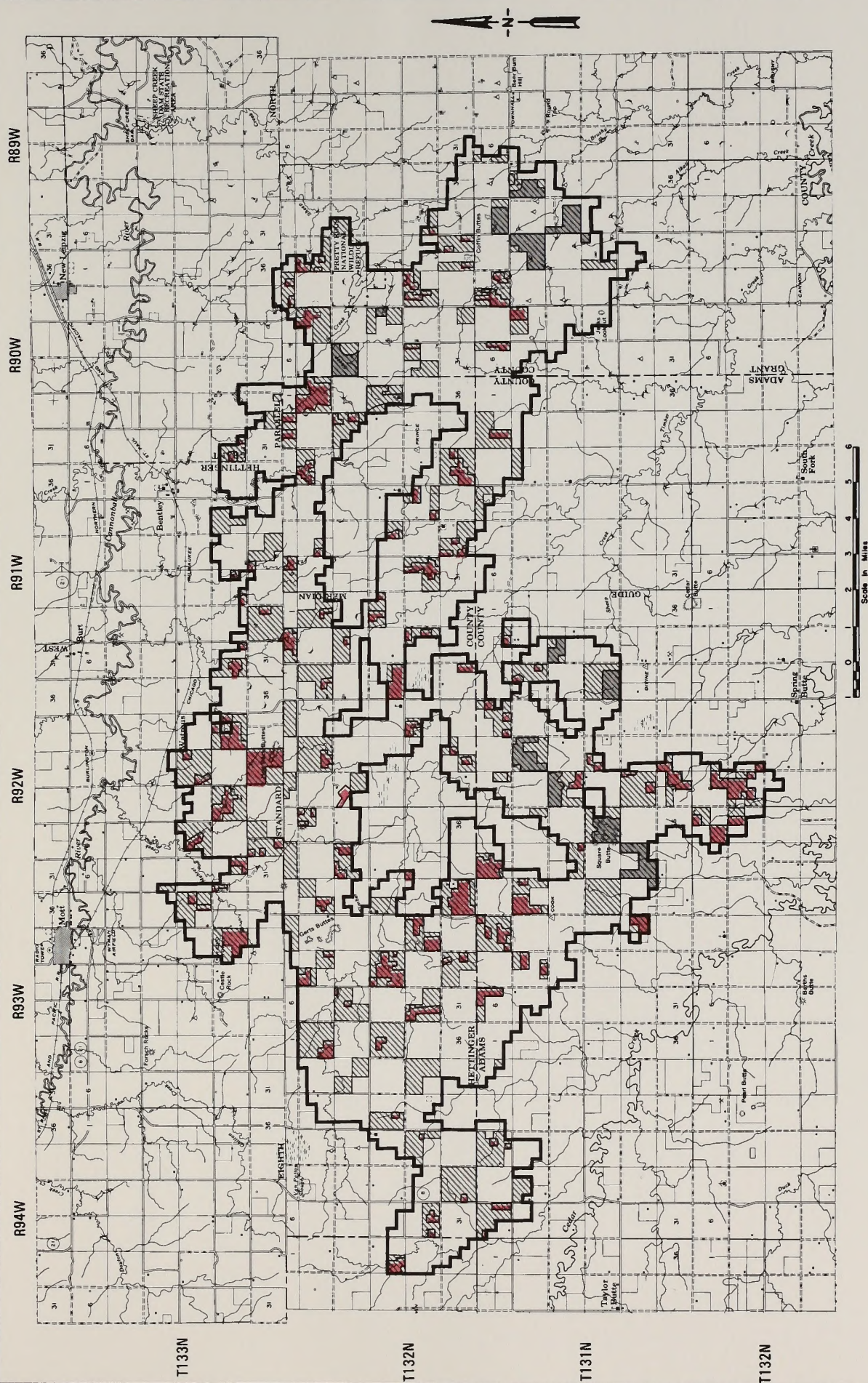
	Acres	Thousands of Tons
Total Coal In Deposit	139,380	1,573,100
Total Federal Coal In Deposit	42,300	494,100
Total Federal Coal Excluded From Further Consideration*	4,260	46,998
(See Map 11 for illustration of the above.)		

EXCLUSIONS BY SCREEN

Unsuitability Criteria		
Criterion 3**	2,048	23,905
Criteria 14 and 15	3,660	39,074
Resource Trade-Offs		
Slope	1,240	12,894
Wildlife Refuge Watershed	1,040	14,560
Surface Owner Consultation	0	0
Land Use Plan Consistency	0	0

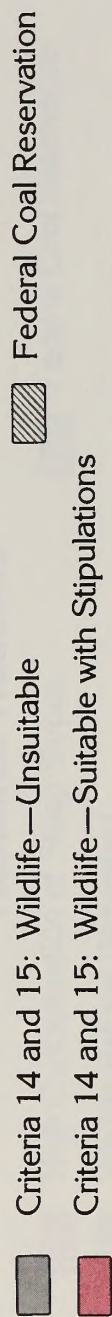
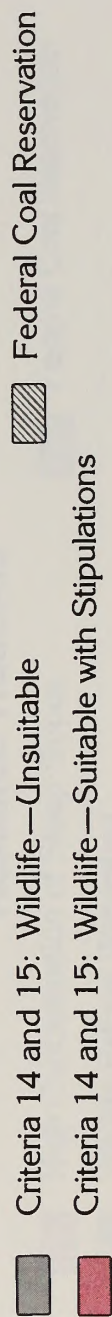
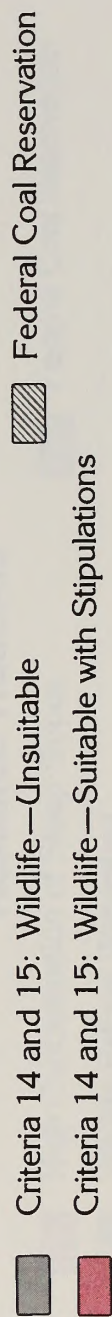
*The sums of acreage and tonnage amounts for individual screens do not equal the total acreage and tonnage excluded, because some areas are excluded by more than one screen.

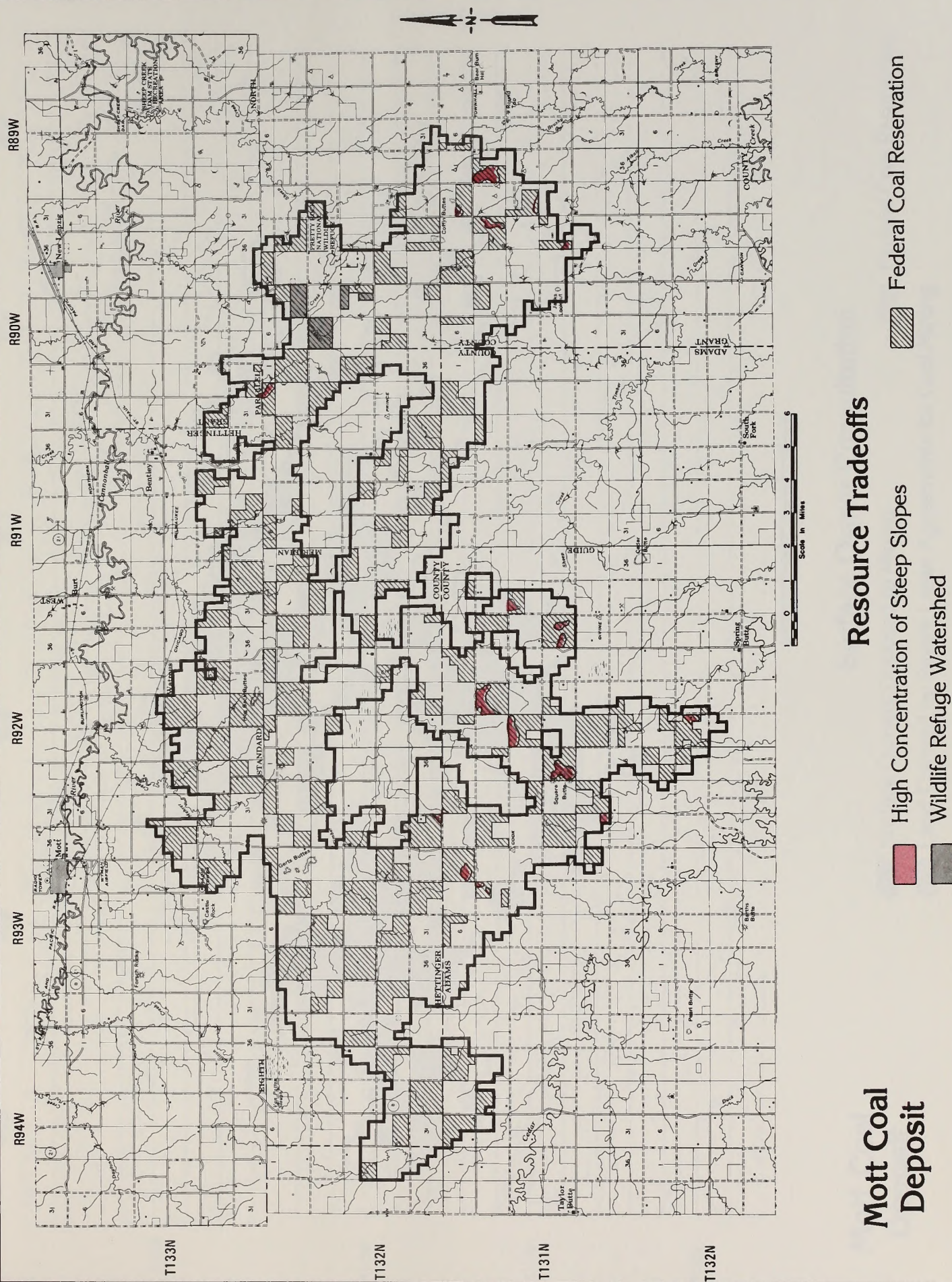
**Acreage and tonnage estimates for Unsuitability Criterion 3 are not included in the total area excluded from further consideration (see recommendations).

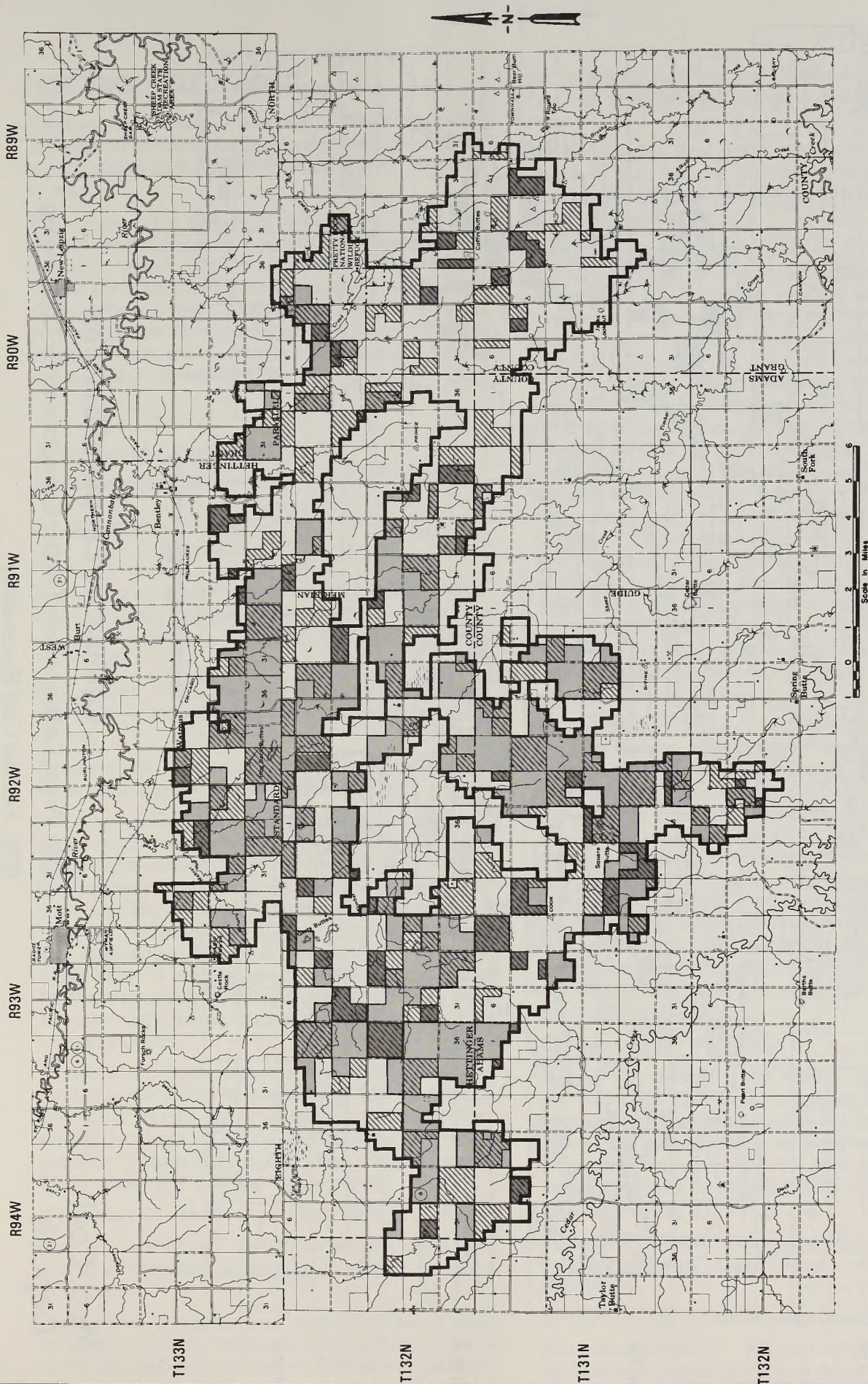


Unsuitability Criteria 14 and 15

Unsuitability Criteria 14 and 15



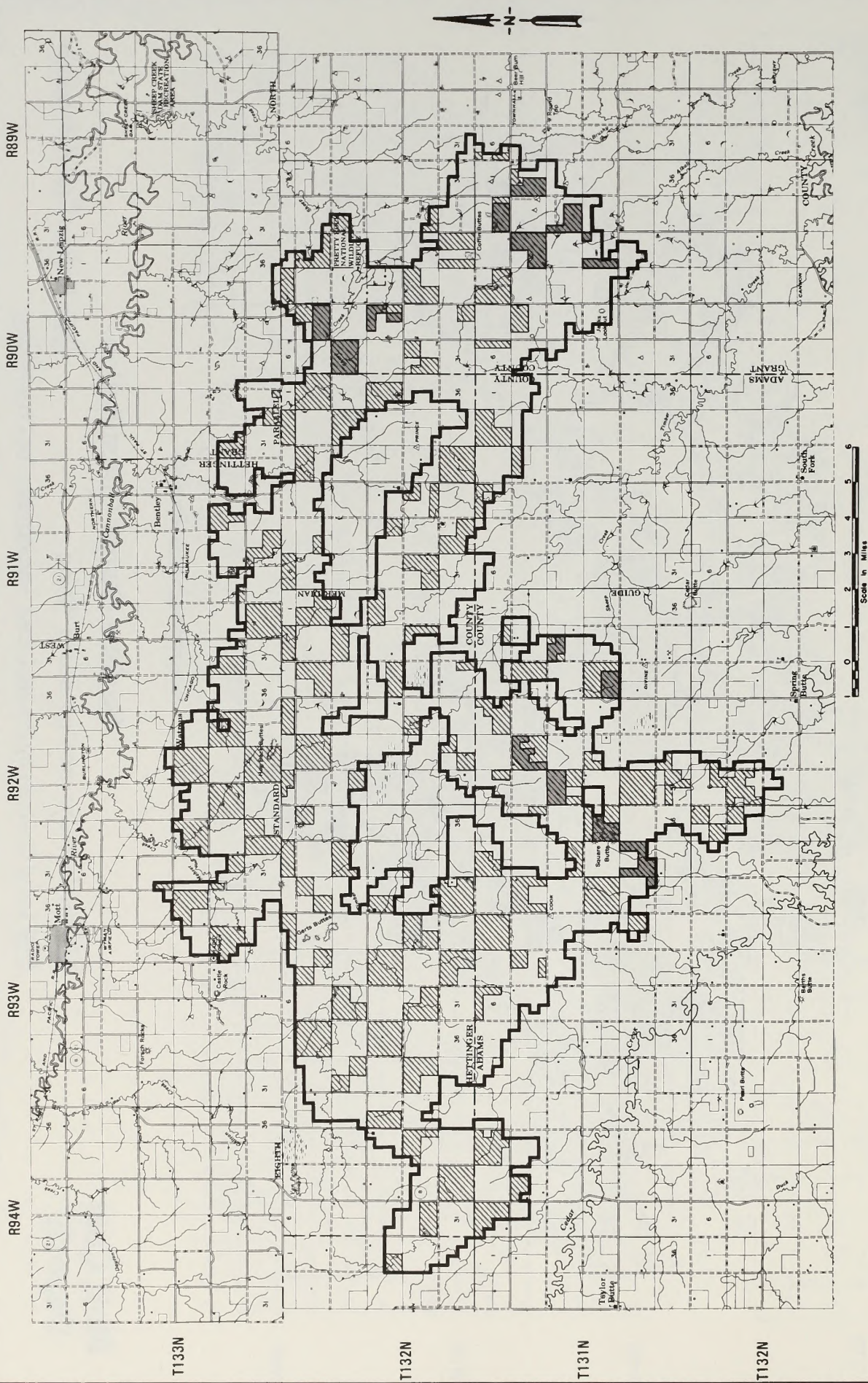




Surface Owner Consultation

- Surface Owners Opposed to Mining
- Land Covered by Private Lease Agreements for Coal Mining
- Federal Coal Reservation

Mott Coal Deposit



Cumulative Effects of Screens

- Areas Excluded from Further Consideration for Coal Leasing
- Federal Coal Reservation

**Mott Coal
Deposit**

NEW ENGLAND DEPOSIT

Recommendation: All federal coal in this deposit is available for further consideration for leasing except for those lands excluded by the application of the following screens.

Rationale: The screening process described in the federal coal management regulations was applied to this coal deposit. Certain areas were excluded from further consideration for leasing upon the application of the required screens. Once these screens are applied and appropriate areas excluded, the remainder of the federal coal in the deposit is acceptable for further consideration for leasing.

Application of Screens: Recommendations

I. Unsuitability Criteria

General:

Recommendation: Do not exclude any federal coal lands from further consideration for leasing based on criteria numbers 1, 2, 4, 5, 6, 8, 9, 10, 11, 12, 13, 17, 18, and 20.

Rationale: The New England Deposit does not contain the resources or conditions addressed by these criteria.

Criterion 3: Buffer Zones along Rights-Of-Way and Adjacent to Communities and Buildings

Recommendation: The following areas are unsuitable for mining: lands within 100 feet of the outside line of the rights-of-way of public roads; within 100 feet of the cemeteries; and within 300 feet of occupied dwellings, schools, churches, community or institutional buildings, and public parks. The acreage of these areas was estimated in this plan (see Table IV). However, these areas will be considered suitable pending further study during activity planning to determine more exact locations and to consider application of the exceptions and exemptions.

Rationale: These areas are numerous, small and randomly distributed throughout the deposit. Application of this criterion now could have a significant effect on the locations of logical mining units. It is more practical to apply this criterion when a smaller area is being considered during activity planning.

Criterion 7: Historic Land and Sites

Recommendation: No areas are excluded from further consideration for leasing at this time due to this criterion.

Rationale: No areas have been identified as being on or eligible for the National Register of Historic Places at this time; however, as further information is gathered

at the activity planning and mine plan stages, areas could be identified as being unsuitable under this criterion.

Criterion 14 and 15: High-Priority Habitat for Migratory Bird Species of High Federal Interest and Fish and Wildlife Habitat Essential for Resident Species of High Interest to the State

Recommendation: Areas of high-priority habitat for migratory bird species of high federal interest and essential wildlife habitat for resident species of high interest to the State were identified through a habitat mapping process involving consultation with the U.S. Fish and Wildlife Service and North Dakota Game and Fish Department. Designate specific acreage unsuitable where it has been determined that these habitats cannot be mined without causing significant long-term adverse impacts to the wildlife species in question. Designate as suitable with stipulations high-priority or essential habitats where restoration or replacement will prevent significant long-term adverse impacts to such species. The lease stipulations should require that such habitats be restored or replaced as agreed upon by appropriate state and federal regulatory agencies. Areas identified as unsuitable and suitable with stipulations are mapped in detail on 1:24,000 scale maps available for public inspection at the Dickinson District Office. Map 12 shows an approximation of these areas.

Rationale: Criteria 14 and 15 were considered jointly because analysis for each criterion was based on the same habitat mapping products, and because the migratory bird species of high federal interest were also considered by the State of North Dakota as species of high interest. It has been determined that those areas identified as unsuitable cannot be mined without causing significant long-term adverse impacts to the wildlife species in question, but the areas identified as suitable with stipulations can be mined and restored or replaced without causing significant long-term adverse impacts. It is assumed that reasonable stipulations for habitat restoration or replacement will be agreed upon which will not preclude mining in the areas identified as suitable with stipulations.

Criterion 16: Floodplains

Recommendation: The federal coal lands within the floodplain (100-year recurrence interval) of the Cannonball River are unsuitable for mining (see Map 13). At this time floodplain boundaries have not been delineated. The map shows the approximate boundaries, and they will be more precisely delineated during activity planning.

Rationale: Impacts cannot be adequately mitigated to prevent losses to downstream occupants of the floodplains.

Criterion 19: Alluvial Valley Floors

Recommendation: Alluvial valley floors (AVF) are unsuitable; however, since final delineation cannot be

done until mining plan time, application of this criterion is deferred. Map 13 shows preliminary designations of AVF.

Rationale: Information is insufficient at this time to make final determinations on the AVF potentially associated with the Cannonball River. It has not yet been determined whether or not protection of this potential AVF is needed and to what extent. The maximum extent of unsuitability designation will not be more than that shown on Map 13.

II. Resource Trade-Offs

Recommendation: Areas with high concentrations of steep slopes (shown in Map 13) are unacceptable for further consideration for coal leasing.

Rationale: The breaks and buttes topography found in this coal area is a unique feature and has high aesthetic value to people living in North Dakota. The broken topography in these areas also limits the impact of agricultural disturbances, which enhances the opportunity for high-quality wildlife habitat. As a result of that, the areas are valuable for hunting. In order to assure the continued existence of these values and satisfy state reclamation laws, the areas would have to be returned to rough topography if they were mined. It would be very difficult to reconstruct steep topography in high concentrations, due to problems with slope stability and mining economics.

III. Surface Owner Consultation

Recommendation: Exclude from further leasing consideration the two areas (I and II) outlined on Map 14.

Rationales:

Area I. Of the 4,480 acres of federal coal in Area I, approximately 3,200 acres (71%) are associated with opposition. There are no private coal leases or surface lease agreements in the area. Federal coal ownership constitutes 39 percent of the area.

Area II. Of the 3,720 acres of federal coal, approximately 2,640 acres are associated with opposition. There are no private coal leases or surface lease agreements in the area. Fifty-three percent of the coal in the area is federal.

IV. Land Use Plan Consistency

Recommendation: Do not exclude any areas due to land use plans developed by other entities.

Rationale: No other land use plans that cover this area have been identified.

TABLE IV
APPLICATION OF COAL EXCLUSION SCREENS
NEW ENGLAND DEPOSIT

	Acres	Thousands of Tons
Total Coal In Deposit	255,780	3,634,300
Total Federal Coal In Deposit	92,000	1,317,200
Total Federal Coal Excluded From Further Consideration*	11,860	171,157
(See Map 15 for illustration of the above.)		

EXCLUSIONS BY SCREEN

Unsuitability Criteria		
Criterion 3**	9,462	135,780
Criteria 14 and 15	4,860	84,098
Criterion 16	1,560	37,893
Criterion 19**	18,280	8,638
Resource Trade-Offs		
Slope	680	8,638
Surface Owner Consultation	8,600	112,420
Land Use Plan Consistency	0	0

*The sums of acreage and tonnage amounts for individual screens do not equal the total acreage and tonnage excluded, because some areas are excluded by more than one screen.

**Acreage and tonnage estimates for Unsuitability Criteria 3 and 19 are not included in the total area excluded from further consideration (see recommendations).

R100W

R99W

R98W

R97W

R96W

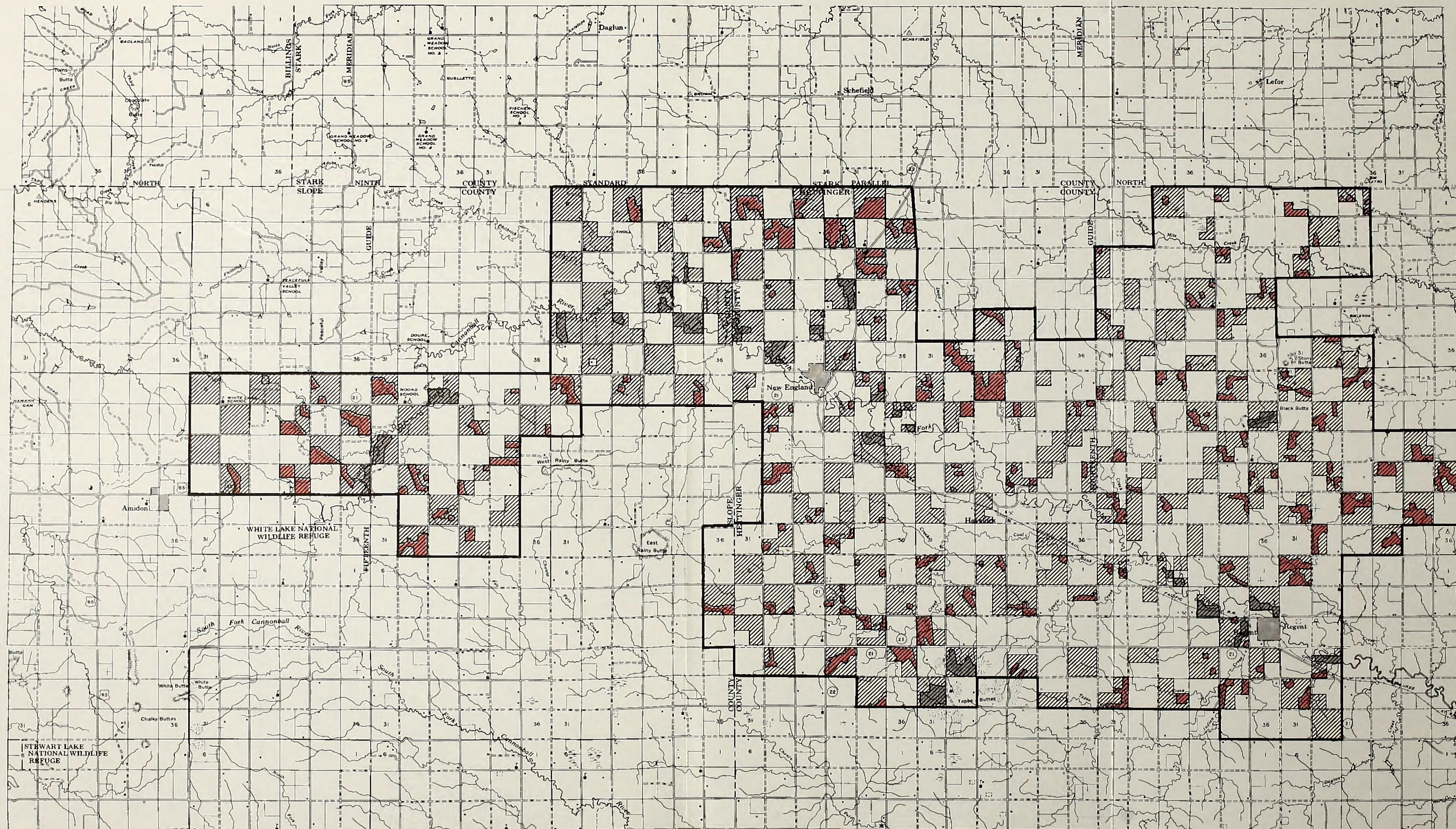
R95W

R94W

T136N

T135N

T134N

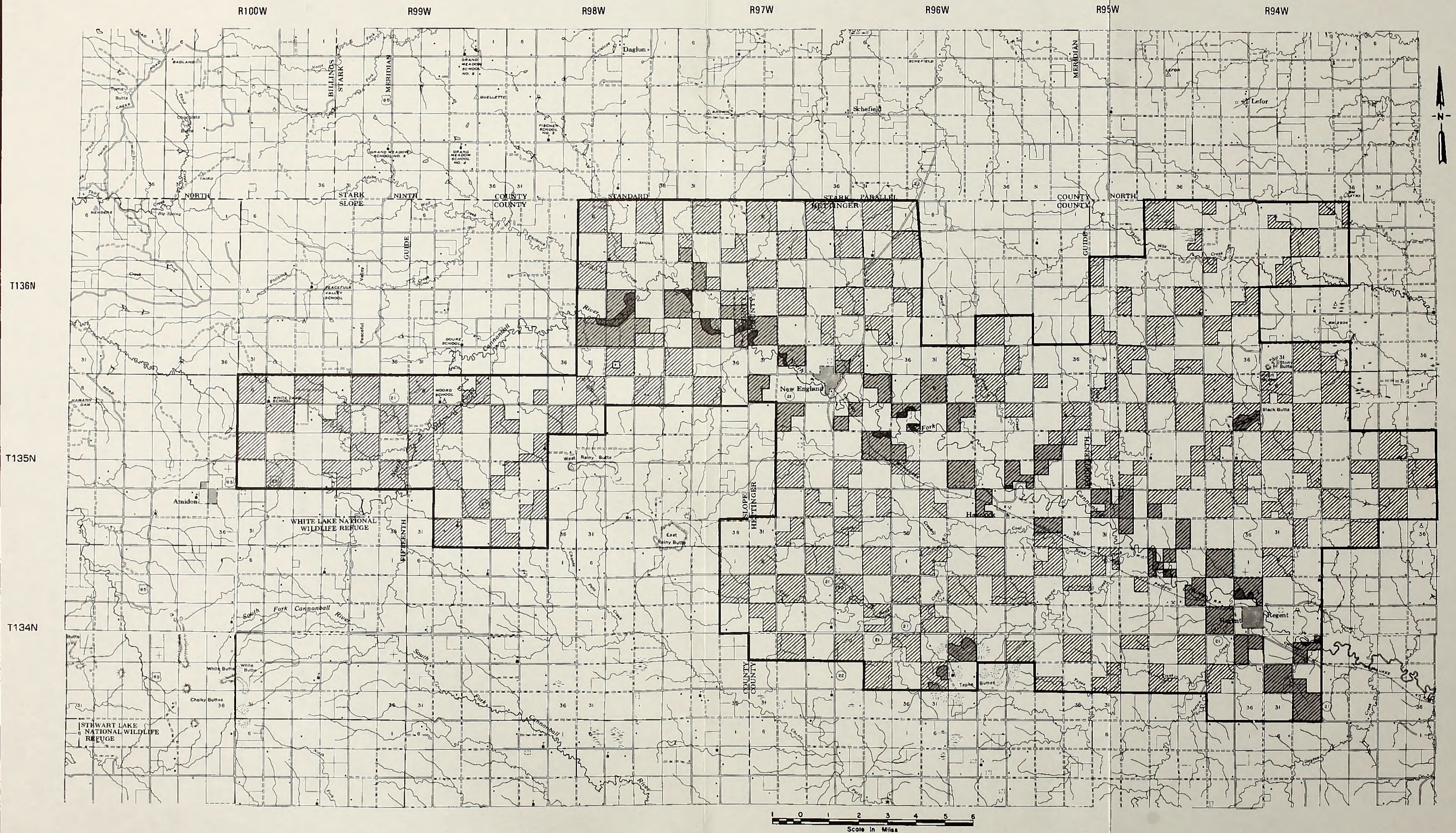


0 1 2 3 4 5 6
Scale in Miles

New England Coal Deposit

Unsuitability Criteria 14 and 15

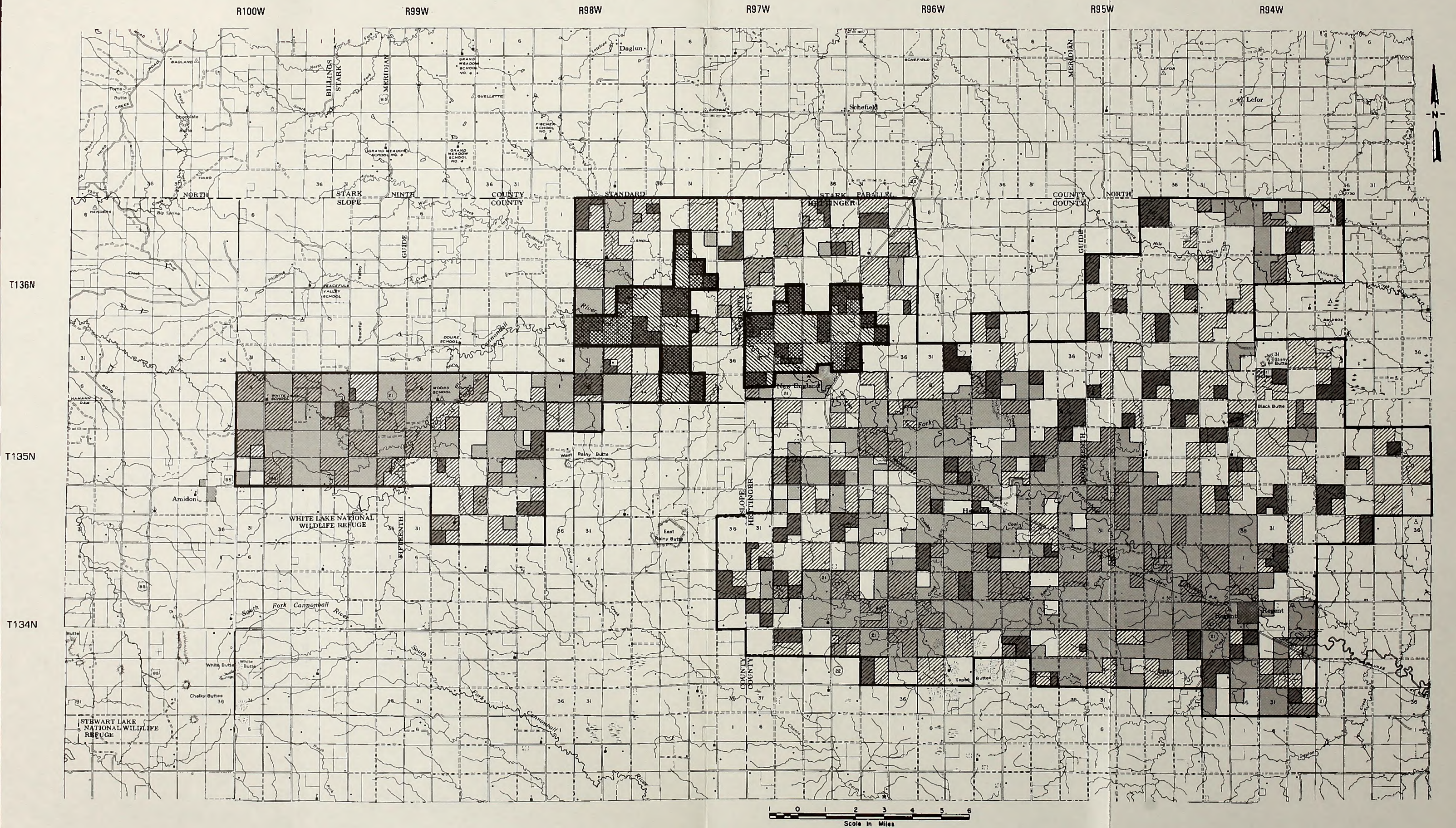
- Criteria 14 and 15: Wildlife—Unsuitable
- Criteria 14 and 15: Wildlife—Suitable with Stipulations
- Federal Coal Reservation



New England Coal Deposit

Unsuitability Criteria 16, 19, and Steep Slopes

- Criterion 16: Floodplain
- Criterion 19: Preliminary Alluvial Valley Floor
- High Concentration of Steep Slopes
- Federal Coal Reservation



New England Coal Deposit

Surface Owner Consultation

- Surface Owners Opposed to Mining
- Lands Covered by Private Lease Agreements for Coal Mining
- Areas with Significant Surface Owner Opposition
- Federal Coal Reservation

BOWMAN-GASCOYNE DEPOSIT

Recommendation: All federal coal in this deposit is available for further consideration for leasing except for those lands excluded by the application of the following screens.

Rationale: The screening process described in the federal coal management regulations was applied to this coal deposit. Certain areas were excluded from further consideration for leasing upon the application of the required screens. Once these screens are applied and appropriate areas excluded, the remainder of the federal coal in the deposit is acceptable for further consideration for leasing.

Application of Screens: Recommendations

I. Unsuitability Criteria

General:

Recommendation: Do not exclude any federal coal lands from further consideration for leasing based on criteria numbers 2, 4, 5, 6, 8, 9, 10, 11, 12, 13, 16, 17, 18, 19, and 20.

Rationale: The Bowman-Gascoyne Deposit does not contain the resources or conditions addressed by these criteria.

Criterion 1: Federal Land Systems and Incorporated Cities, Towns, and Villages

Recommendation: Federal coal lands within the town of Gascoyne and the National Wildlife Refuge system are unsuitable under this criterion (see Maps 16 and 17).

Rationale: Regulations require that federal coal lands within incorporated towns and within federal land systems be designated unsuitable.

Criterion 3: Buffer Zones along Rights-Of-Way and Adjacent to Communities and Buildings

Recommendation: The following areas are unsuitable for mining: lands within 100 feet of the outside line of the rights-of-way of public roads; within 100 feet of the cemeteries; and within 300 feet of occupied dwellings, schools, churches, community or institutional buildings, and public parks. The acreage of these areas was estimated in this plan (see Table V). However, these areas will be considered suitable pending further study during activity planning to determine more exact locations and to consider application of the exceptions and exemptions.

Rationale: These areas are numerous, small and randomly distributed throughout the deposit. Application of this criterion now could have a significant effect on the locations of logical mining units. It is more

practical to apply this criterion when a smaller area is being considered during activity planning.

Criterion 7: Historic Land and Sites

Recommendation: No areas are excluded from further consideration for leasing at this time due to this criterion.

Rationale: No areas have been identified as being on or eligible for the National Register of Historic Places at this time; however, as further information is gathered at the activity planning and mine plan stages, areas could be identified as being unsuitable under this criterion.

Criterion 14 and 15: High-Priority Habitat for Migratory Bird Species of High Federal Interest and Fish and Wildlife Habitat Essential for Resident Species of High Interest to the State

Recommendation: Areas of high-priority habitat for migratory bird species of high federal interest and essential wildlife habitat for resident species of high interest to the State were identified through a habitat mapping process involving consultation with the U.S. Fish and Wildlife Service and North Dakota Game and Fish Department. Designate specific acreage unsuitable where it has been determined that these habitats cannot be mined without causing significant long-term adverse impacts to the wildlife species in question. Designate as suitable with stipulations high-priority or essential habitats where restoration or replacement will prevent significant long-term adverse impacts to such species. The lease stipulations should require that such habitats be restored or replaced as agreed upon by appropriate state and federal regulatory agencies. Areas identified as unsuitable and suitable with stipulations are mapped in detail on 1:24,000 scale maps available for public inspection at the Dickinson District Office. Maps 18 and 19 show an approximation of these areas.

Rationale: Criteria 14 and 15 were considered jointly because analysis for each criterion was based on the same habitat mapping products, and because the migratory bird species of high federal interest were also considered by the State of North Dakota as species of high interest. It has been determined that those areas identified as unsuitable cannot be mined without causing significant long-term adverse impacts to the wildlife species in question, but the areas identified as suitable with stipulations can be mined and restored or replaced without causing significant long-term adverse impacts. It is assumed that reasonable stipulations for habitat restoration or replacement will be agreed upon which will not preclude mining in the areas identified as suitable with stipulations.

II. Resource Trade-Offs

Recommendation: A portion of the watershed for the lake at Stewart Lake National Wildlife Refuge is

unacceptable for further consideration for coal leasing (see Map 16).

Rationale: Wildlife refuge lands constitute a federal lands system, unsuitable under Criterion 1 of the unsuitability criteria. At this refuge the lake is an integral part of the purpose of the refuge. The watershed area shown on Map 16 is necessary to maintain the quality and quantity of water in the lake.

Recommendation: Areas with high concentrations of steep slopes (shown in Map 16) are unacceptable for further consideration for coal leasing.

Rationale: The breaks topography found in this coal deposit is a unique topographic feature that has high aesthetic value to people living in North Dakota. The broken topography also limits the impact of agricultural disturbances, which enhances the opportunity for larger concentrations of high quality wildlife habitat. As a result of that, the areas are valuable for hunting. In order to assure the continued existence of these values and satisfy state reclamation laws, the areas would have to be returned to rough topography if they were mined. It would be very difficult to reconstruct steep topography in high concentrations, due to problems with slope stability and mining economics.

III. Surface Owner Consultation

Recommendation: Do not exclude any federal coal lands from further consideration for leasing on the basis of surface owner opposition.

Rationale: In the portions of this deposit under BLM planning jurisdiction, recorded surface owner opposition is quite scattered. Also there are extensive areas within the deposit that are covered by private and federal coal leases and surface lease agreements for mining.

Appendix F contains consultation statistics, and Maps 20 and 21 depict opposition.

IV. Land Use Plan Consistency

Recommendation: Do not exclude any areas due to land use plans developed by other entities.

Rationale: No other land use plans that cover this area have been identified.

TABLE V
APPLICATION OF COAL EXCLUSION SCREENS
BOWMAN—GASCOYNE DEPOSIT

	<u>Acres</u>	<u>Thousands of Tons</u>
Total Coal In Deposit	78,000	2,293,300
Total Federal Coal In Deposit	20,520	663,600
Total Federal Coal Excluded From Further Consideration*	2,200	85,953

(See Maps 22 and 23 for illustration of the above.)

EXCLUSIONS BY SCREEN

Unsuitability Criteria		
Criterion 1	320	10,598
Criterion 3**	1,810	62,146
Criteria 14 and 15	1,120	36,519
Resource Trade-Offs		
Slope	100	403
Surface Owner Consultation	0	0
Land Use Plan Consistency	0	0

*The sums of acreage and tonnage amounts for individual screens do not equal the total acreage and tonnage excluded, because some areas are excluded by more than one screen.

**Acreage and tonnage estimates for Unsuitability Criterion 3 are not included in the total area excluded from further consideration (see recommendations).

R97W

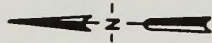
R98W

R99W

R100W

T131N

T130N

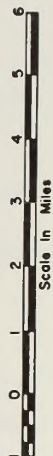
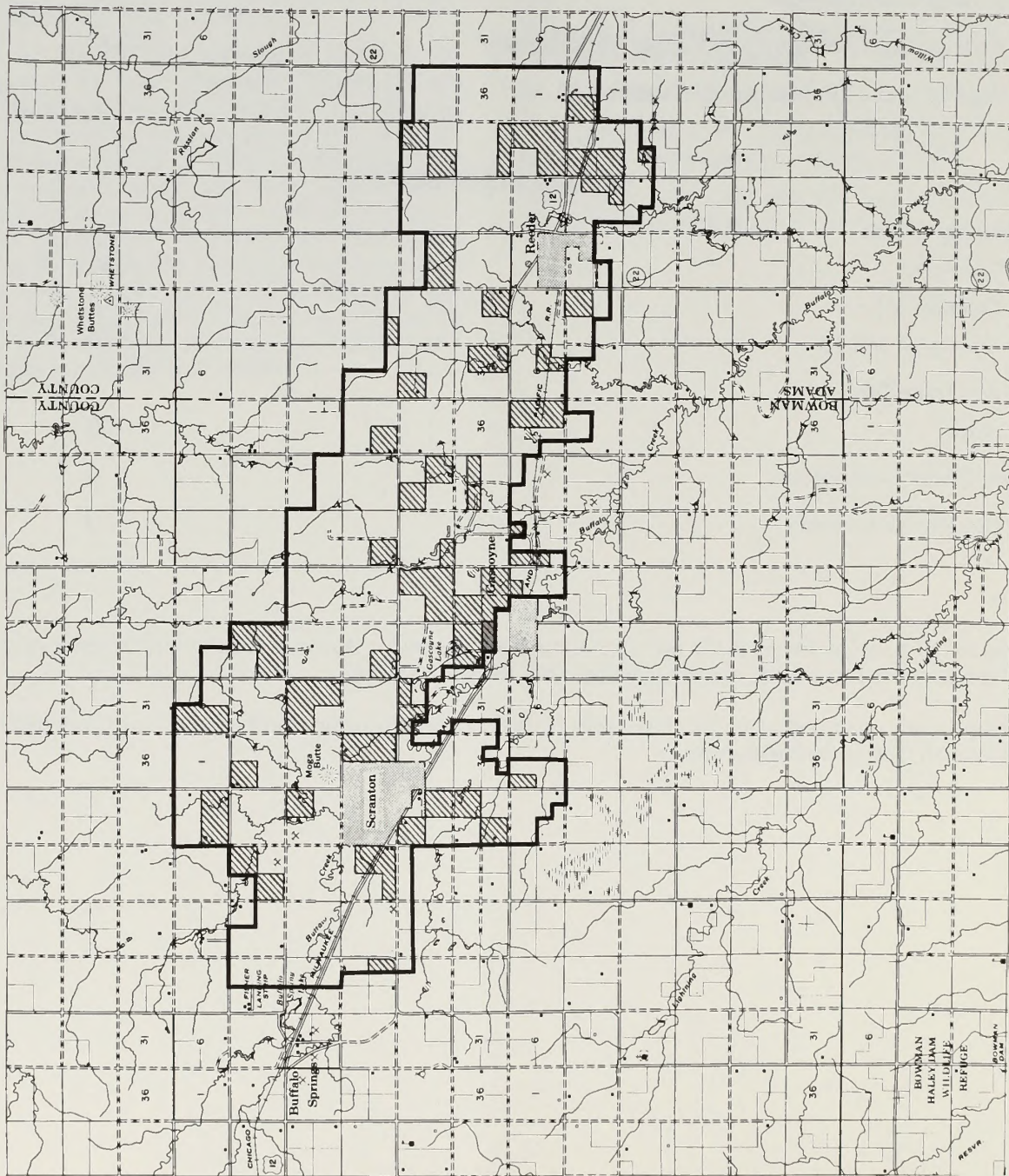


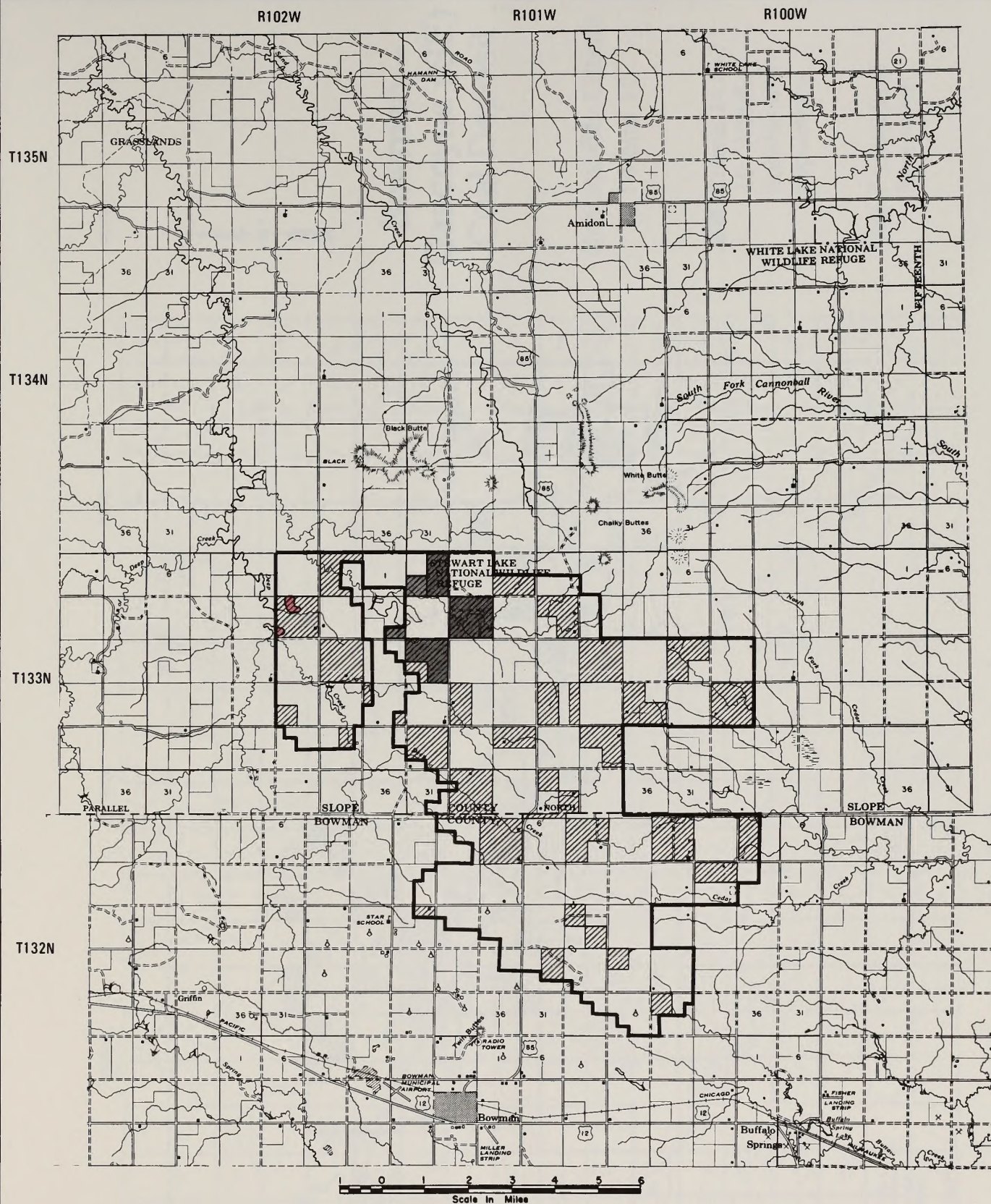
Bowman — Gascoyne (SE) Coal Deposit

Unsuitability
Criterion 1

Criterion 1

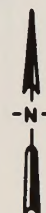
Federal Coal
Reservation



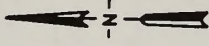


Bowman—Gascoyne (NW) Coal Deposit Unsuitability Criterion 1 and Resource Tradeoffs

- | | |
|------------------------------------|---------------------------|
| Criterion 1 | Wildlife Refuge Watershed |
| High Concentration of Steep Slopes | Federal Coal Reservation |



R97W

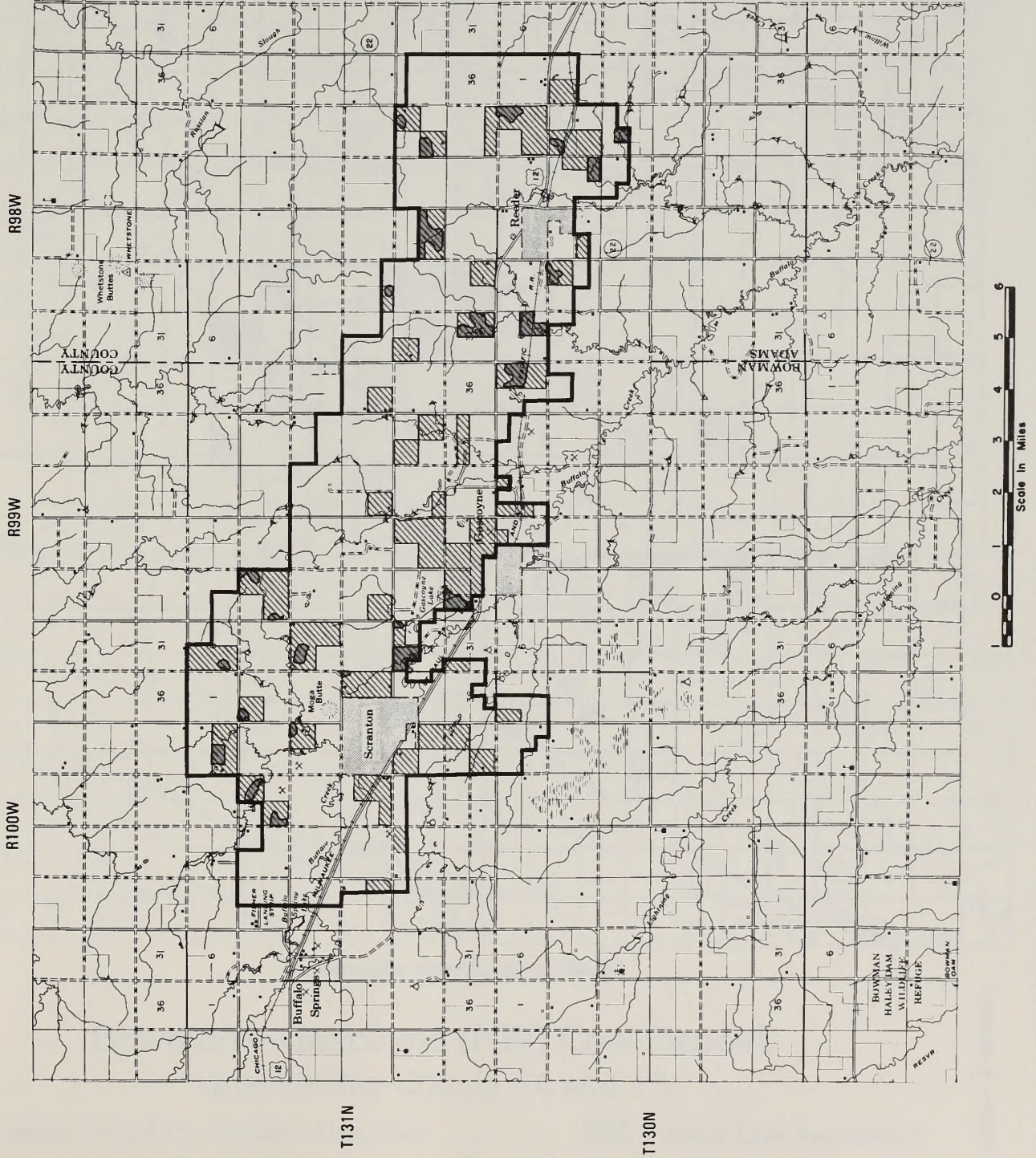


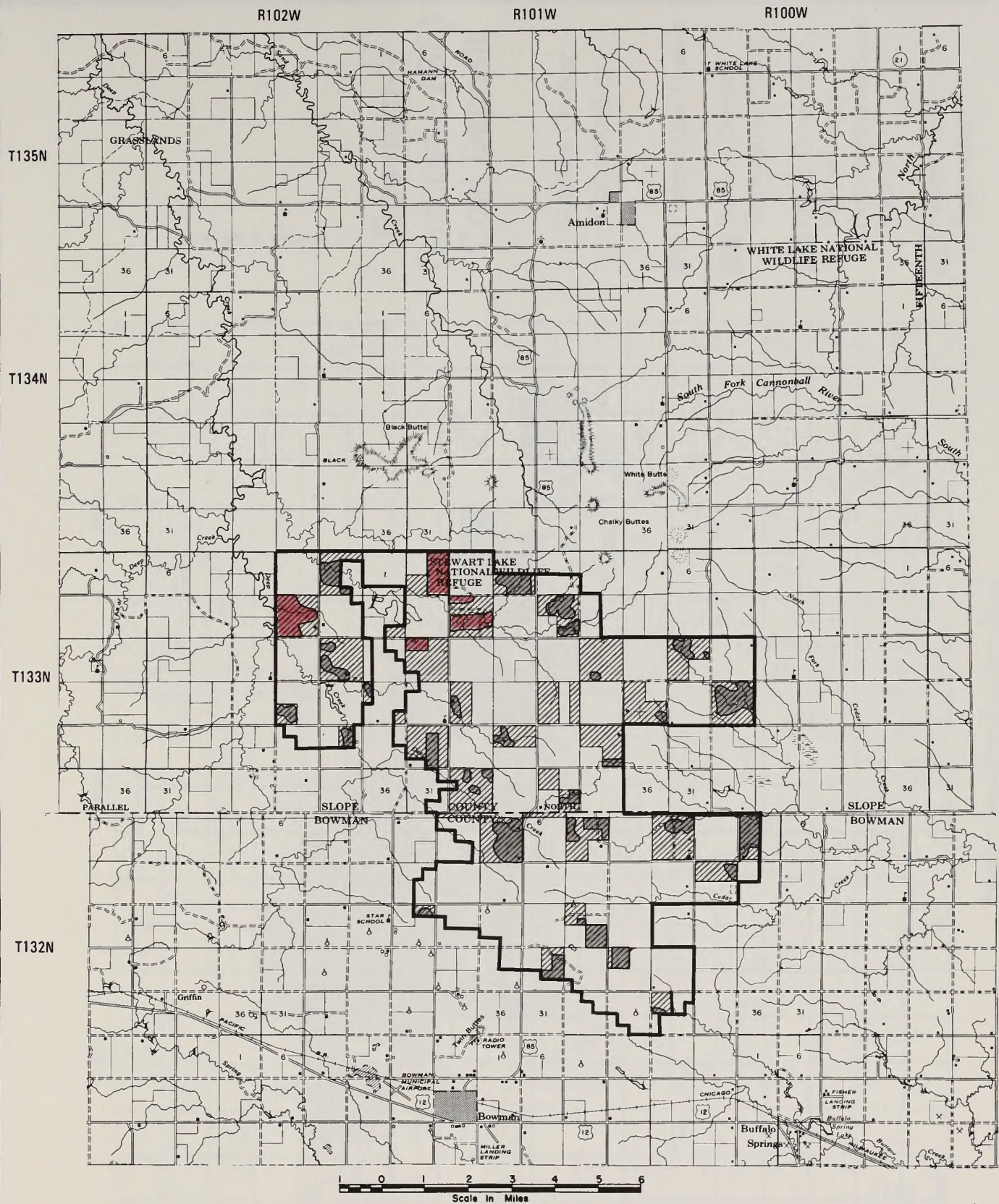
Bowman— Gascoyne (SE) Coal Deposit

Unsuitability Criteria
14 and 15

Criteria 14 and
15: Wildlife—
Suitable with
Stipulations

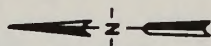
Federal Coal
Reservation









Bowman—Gascoyne (NW) Coal Deposit Unsuitability Criteria 14 and 15

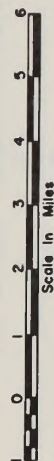
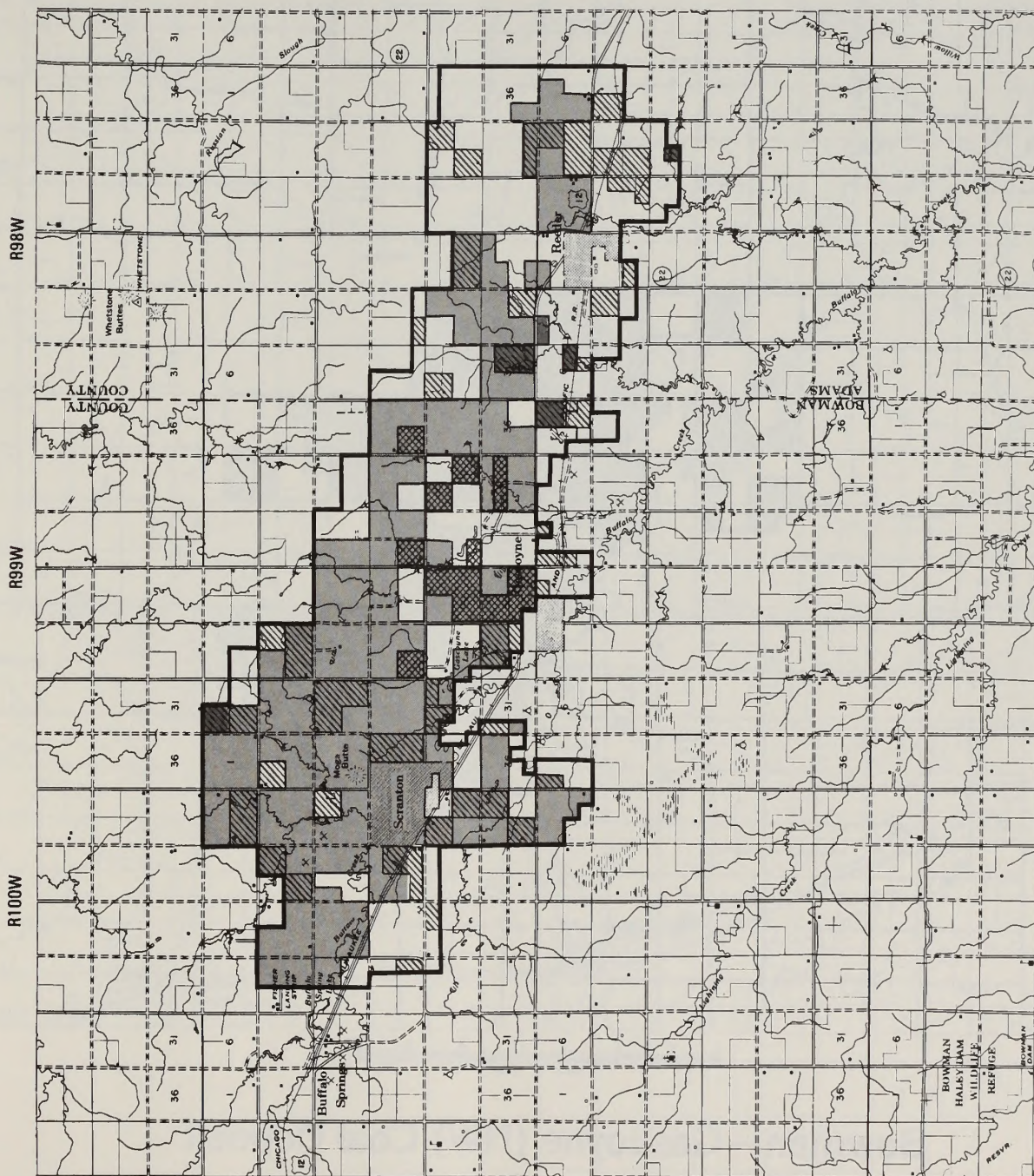
- Criteria 14 and 15: Wildlife—Unsuitable
- Criteria 14 and 15: Wildlife—Suitable with Stipulations
- Federal Coal Reservation

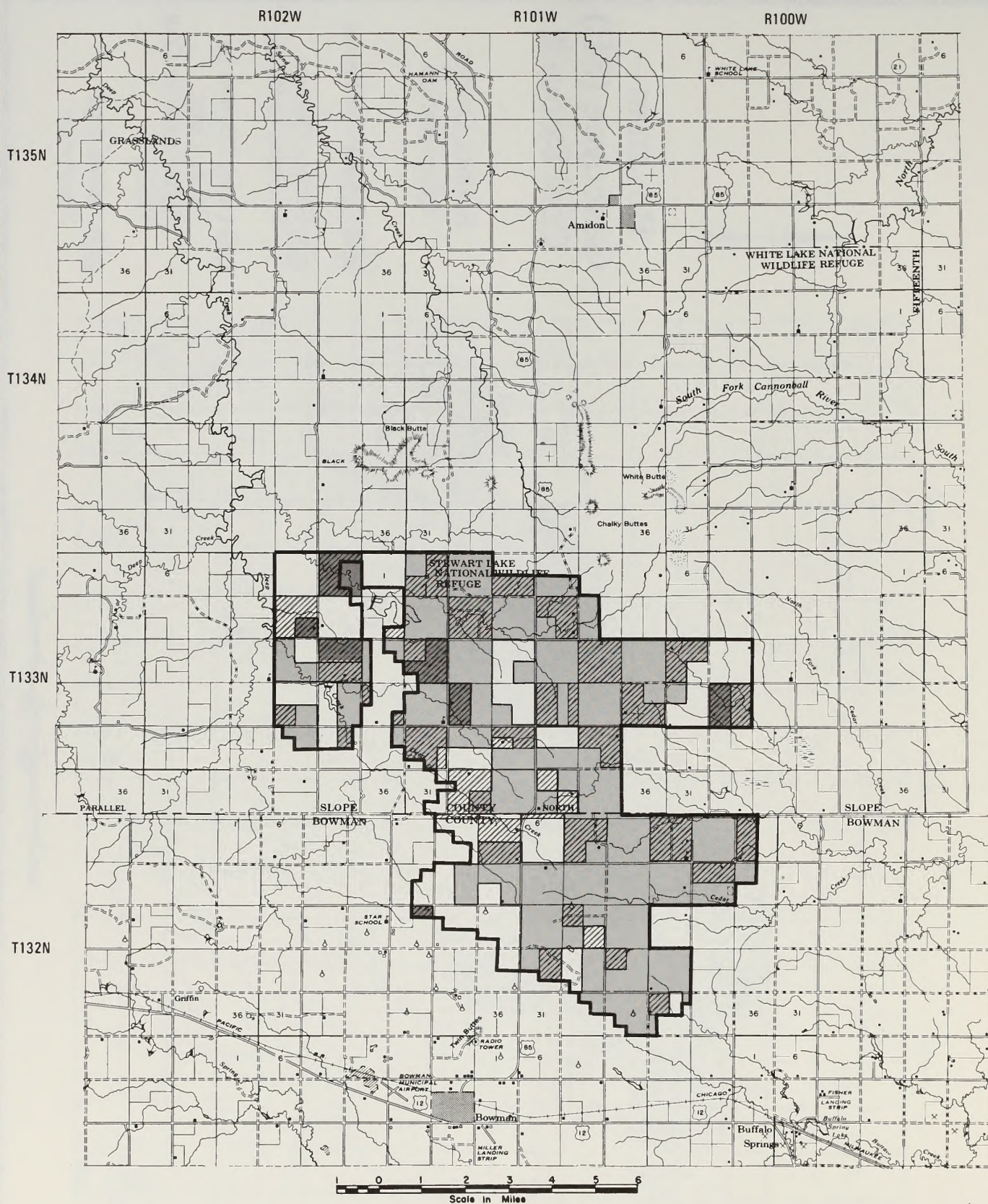


Bowman — Gascoyne (SE) Coal Deposit

Surface Owner Consultation

-  Federal Coal Leases
-  Surface Owners
Opposed to Mining
-  Lands Covered by
Private Lease
Agreements for Coal
Mining
-  Federal Coal
Reservation

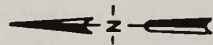




Bowman—Gascoyne (NW) Coal Deposit Surface Owner Consultation

- Surface Owners Opposed to Mining
- Federal Coal Reservation
- Lands Covered by Private Lease Agreements for Coal Mining

R97W

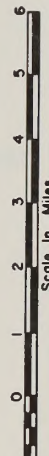
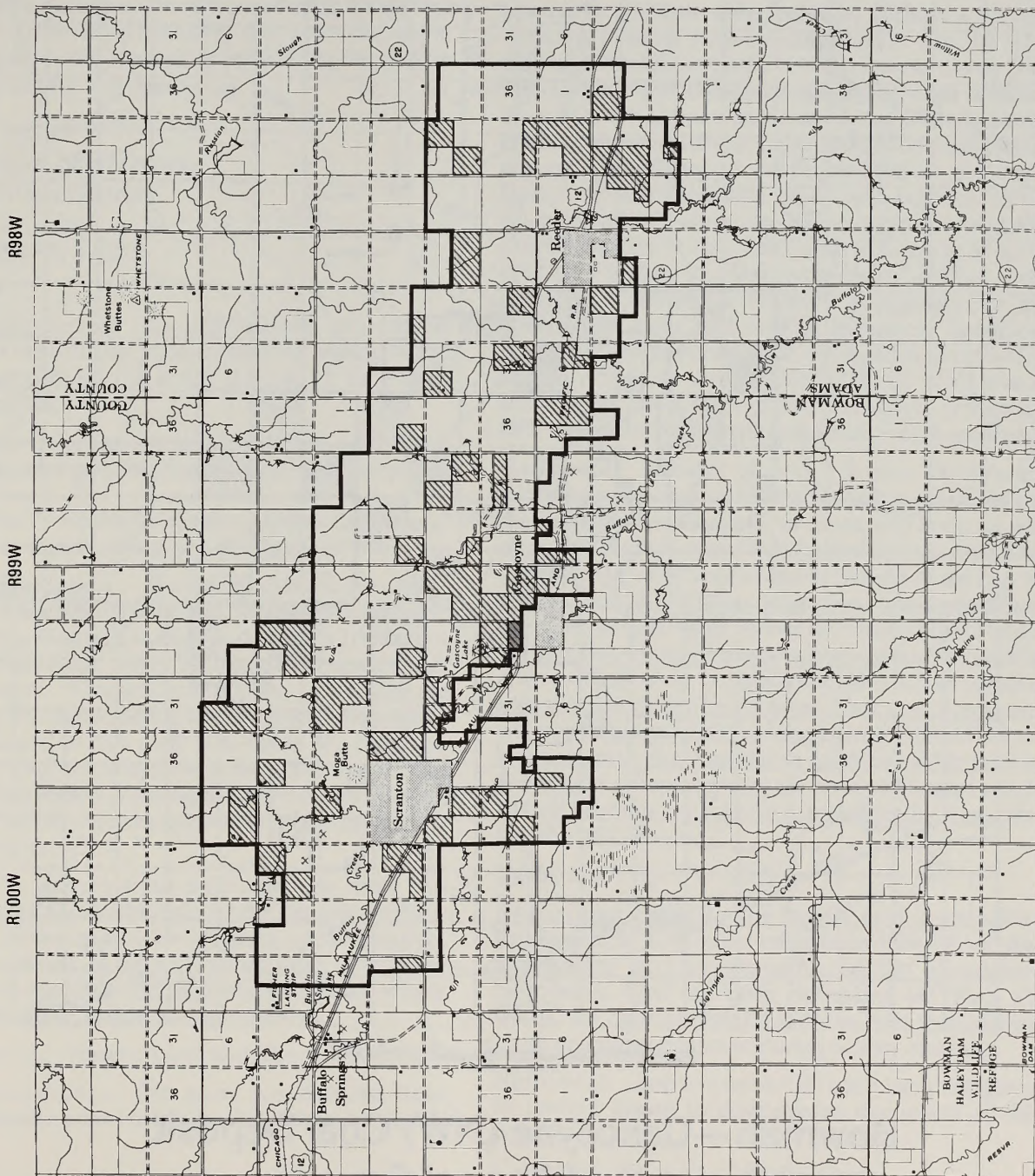


Bowman— Gascoyne (SE) Coal Deposit

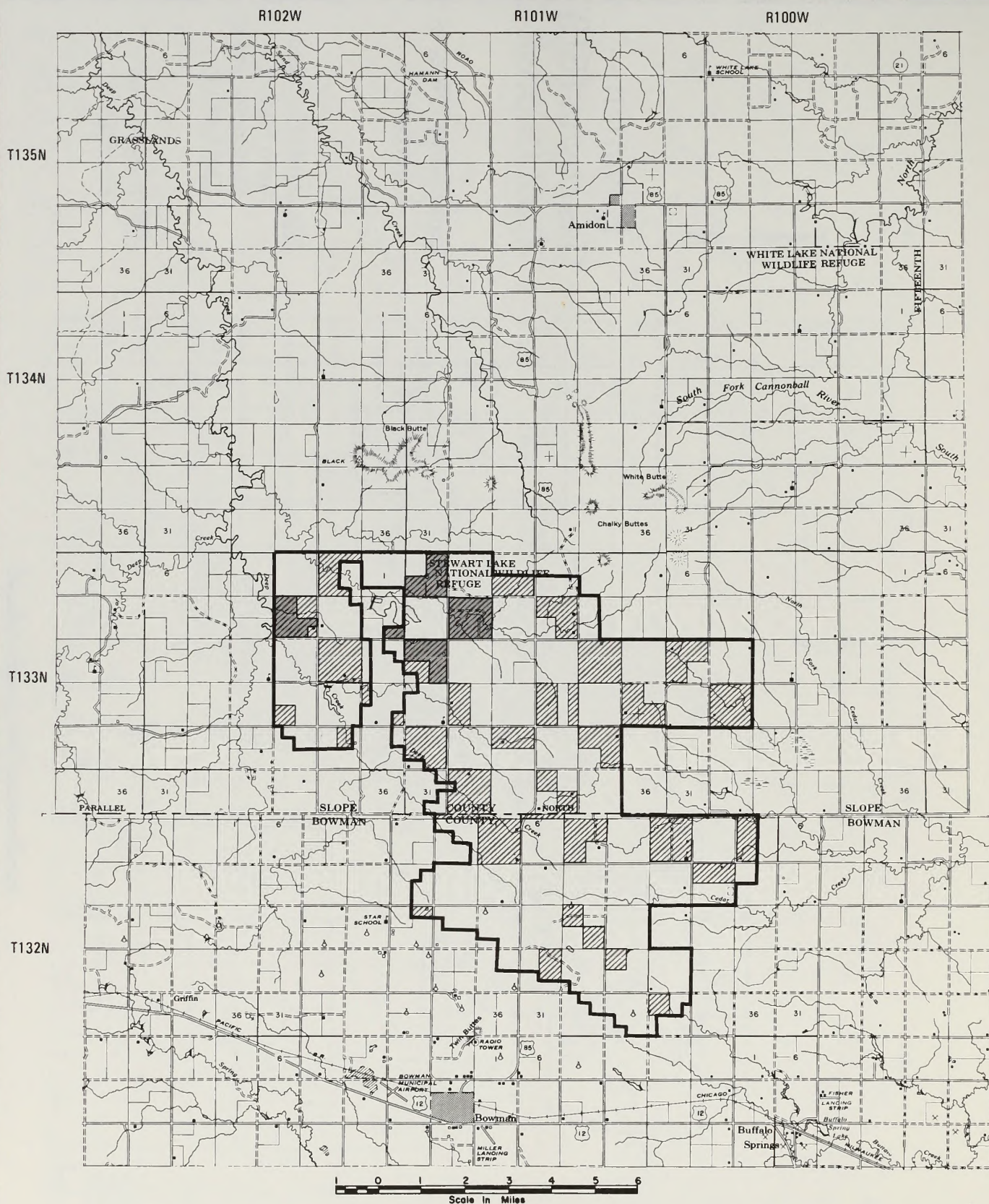
Cumulative Effect of
Screens

Areas Excluded
from Further
Consideration for
Coal Leasing

Federal Coal
Reservation



Scale in Miles



Bowman—Gascoyne (NW) Coal Deposit Cumulative Effects of Screens

- Areas Excluded from Further Consideration for Coal Leasing
- Federal Coal Reservation

DICKINSON DEPOSIT

Recommendation: All federal coal in this deposit is available for further consideration for leasing except for those lands excluded by the application of the following screens.

Rationale: The screening process described in the federal coal management regulations was applied to this coal deposit. Certain areas were excluded from further consideration for leasing upon the application of the required screens. Once these screens are applied and appropriate areas excluded, the remainder of the federal coal in the deposit is acceptable for further consideration for leasing.

Application of Screens: Recommendations

I. Unsuitability Criteria

General:

Recommendation: Do not exclude any federal coal lands from further consideration for leasing based on criteria numbers 1, 2, 4, 5, 6, 8, 9, 10, 11, 12, 13, 16, 17, 18, and 20.

Rationale: The Dickinson Deposit does not contain the resources or conditions addressed by these criteria.

Criterion 3: Buffer Zones along Rights-Of-Way and Adjacent to Communities and Buildings

Recommendation: The following areas are unsuitable for mining: lands within 100 feet of the outside line of the rights-of-way of public roads; within 100 feet of the cemeteries; and within 300 feet of occupied dwellings, schools, churches, community or institutional buildings, and public parks. The acreage of these areas was estimated in this plan (see Table VI). However, these areas will be considered suitable pending further study during activity planning to determine more exact locations and to consider application of the exceptions and exemptions.

Rationale: These areas are numerous, small and randomly distributed throughout the deposit. Application of this criterion now could have a significant effect on the locations of logical mining units. It is more practical to apply this criterion when a smaller area is being considered during activity planning.

Criterion 7: Historic Land and Sites

Recommendation: No areas are excluded from further consideration for leasing at this time due to this criterion.

Rationale: No areas have been identified as being on or eligible for the National Register of Historic Places at this time; however, as further information is gathered at the activity planning and mine plan stages, areas

could be identified as being unsuitable under this criterion.

Criterion 14 and 15: High-Priority Habitat for Migratory Bird Species of High Federal Interest and Fish and Wildlife Habitat Essential for Resident Species of High Interest to the State

Recommendation: Areas of high-priority habitat for migratory bird species of high federal interest and essential wildlife habitat for resident species of high interest to the State were identified through a habitat mapping process involving consultation with the U.S. Fish and Wildlife Service and North Dakota Game and Fish Department. Designate specific acreage unsuitable where it has been determined that these habitats cannot be mined without causing significant long-term adverse impacts to the wildlife species in question. Designate as suitable with stipulations high-priority or essential habitats where restoration or replacement will prevent significant long-term adverse impacts to such species. The lease stipulations should require that such habitats be restored or replaced as agreed upon by appropriate state and federal regulatory agencies. Areas identified as unsuitable and suitable with stipulations are mapped in detail on 1:24,000 scale maps available for public inspection at the Dickinson District Office. Map 24 shows an approximation of these areas.

Rationale: Criteria 14 and 15 were considered jointly because analysis for each criterion was based on the same habitat mapping products, and because the migratory bird species of high federal interest were also considered by the State of North Dakota as species of high interest. It has been determined that those areas identified as unsuitable cannot be mined without causing significant long-term adverse impacts to the wildlife species in question, but the areas identified as suitable with stipulations can be mined and restored or replaced without causing significant long-term adverse impacts. It is assumed that reasonable stipulations for habitat restoration or replacement will be agreed upon which will not preclude mining in the areas identified as suitable with stipulations.

Criterion 16: Floodplains

Recommendation: The federal coal lands within the floodplain (100-year recurrence interval) of the Green River are unsuitable for mining. Floodplain boundaries have not been delineated yet. Map 25 shows the approximate boundaries, and they will be more precisely delineated during activity planning.

Rationale: Impacts cannot be adequately mitigated to prevent losses to downstream occupants of the floodplains.

Criterion 19: Alluvial Valley Floors

Recommendation: Alluvial valley floors (AVF) are unsuitable; however, since final delineation cannot be done until mining plan time, application of this criterion

is deferred. Map 26 shows preliminary designations of AVF.

Rationale: Information is insufficient at this time to make final determinations on the AVF potentially associated with the Green River. It has not yet been determined whether or not protection of this potential AVF is needed and to what extent. The maximum extent of unsuitability designation will not be more than that shown on Map 26.

II. Resource Trade-Offs

Recommendation: Areas with high concentrations of steep slopes (shown in Map 25) are unacceptable for further consideration for coal leasing.

Rationale: The breaks and buttes topography found in this coal deposit is a unique feature and has high aesthetic value to people living in North Dakota. The broken topography also limits the impact of agricultural disturbances, which enhances the opportunity for high-quality wildlife habitat. As a result of that, the areas are valuable for hunting. In order to assure the continued existence of these values and satisfy state reclamation laws, the areas should have to be returned

to rough topography if they were mined. It would be very difficult to reconstruct steep topography in high concentrations due to problems with slope stability and mining economics.

III. Surface Owner Consultation

Recommendation: Do not exclude any federal coal lands from further leasing consideration on the basis of surface owner opposition.

Rationale: The opposition that was recorded was quite scattered, and much of the deposit is covered by private coal leases and surface lease agreements for mining.

IV. Land Use Plan Consistency

Recommendation: Do not exclude any areas due to land use plans developed by other entities.

Rationale: No other land use plans that cover this area have been identified.

Appendix F contains consultation statistics, and Map 27 depicts opposition.

TABLE VI
APPLICATION OF COAL EXCLUSION SCREENS
DICKINSON DEPOSIT

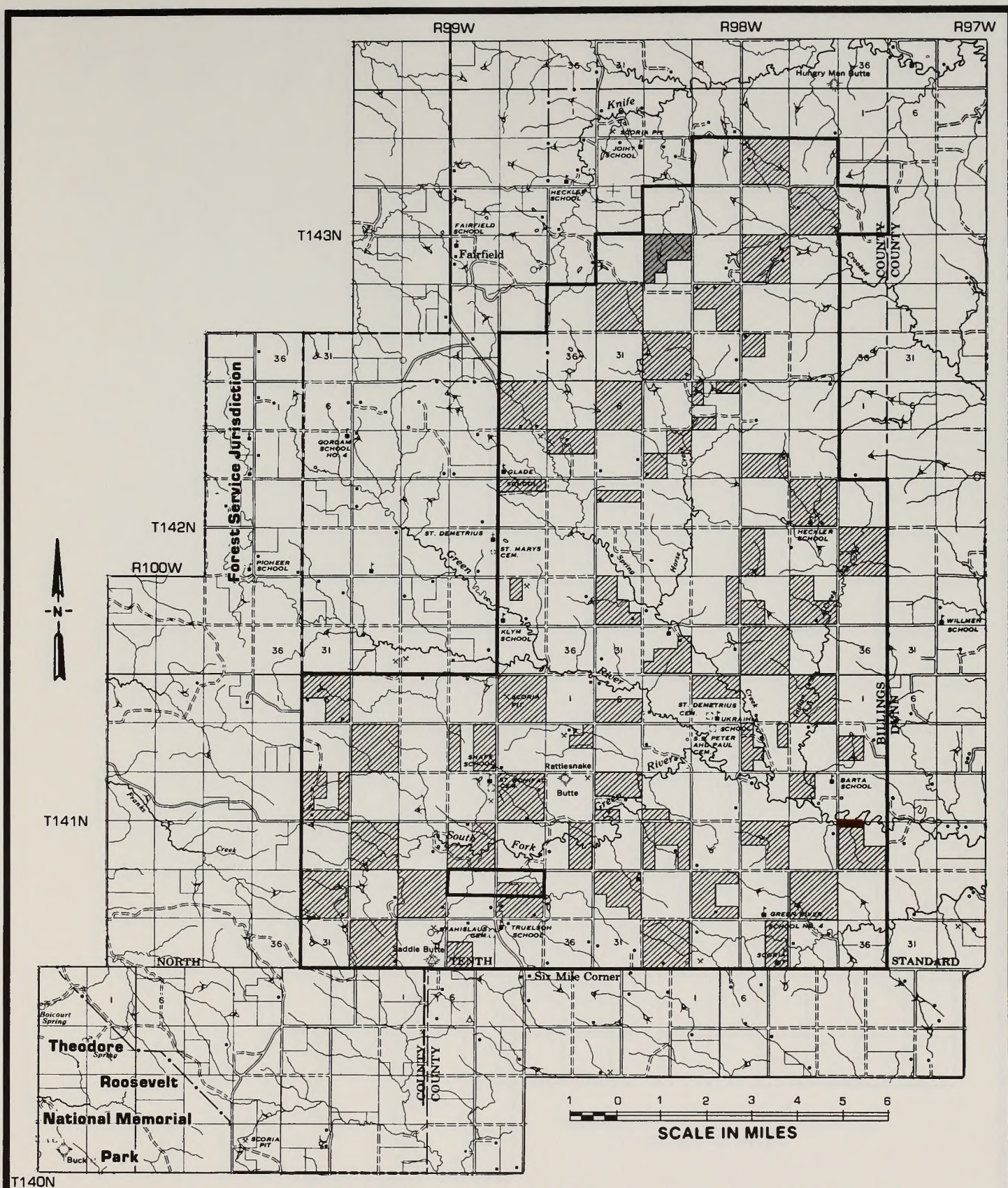
	Acres	Thousands of Tons
Total Coal In Deposit	93,360	2,489,600
Total Federal Coal In Deposit	24,240	637,300
Total Federal Coal Excluded From Further Consideration*	1,600	30,548
(See Map 28 for illustration of the above.)		

EXCLUSIONS BY SCREEN

Unsuitability Criteria		
Criterion 3**	1,425	37,456
Criteria 14 and 15	1,550	28,616
Criterion 16	45	1,819
Criterion 19**	2,440	98,637
Resource Trade-Offs		
Slope	890	12,616
Surface Owner Consultation	0	0
Land Use Plan Consistency	0	0

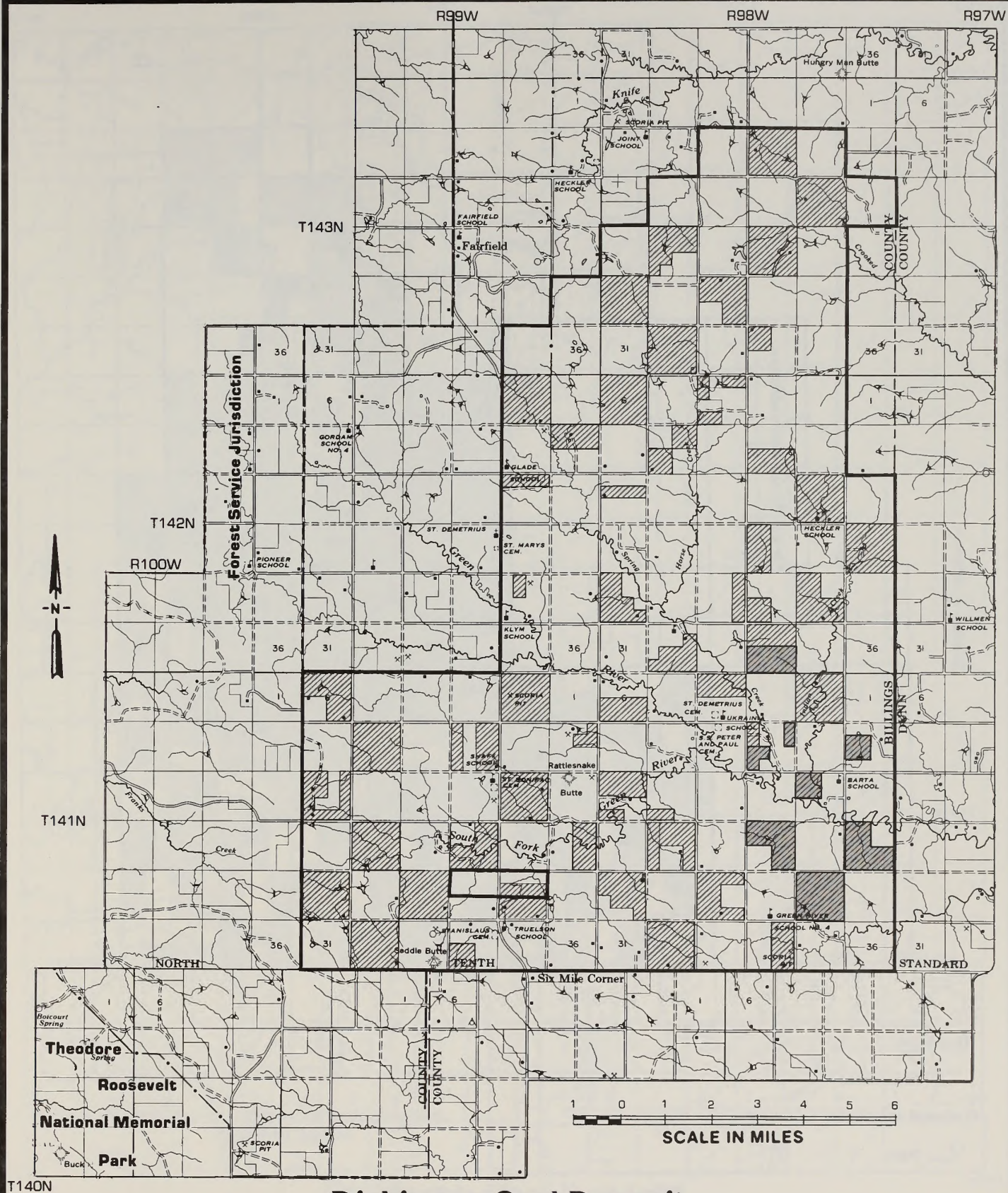
*The sums of acreage and tonnage amounts for individual screens do not equal the total acreage and tonnage excluded, because some areas are excluded by more than one screen.

**Acreage and tonnage estimates for Unsuitability Criteria 3 and 19 are not included in the total area excluded from further consideration (see recommendations).



Dickinson Coal Deposit

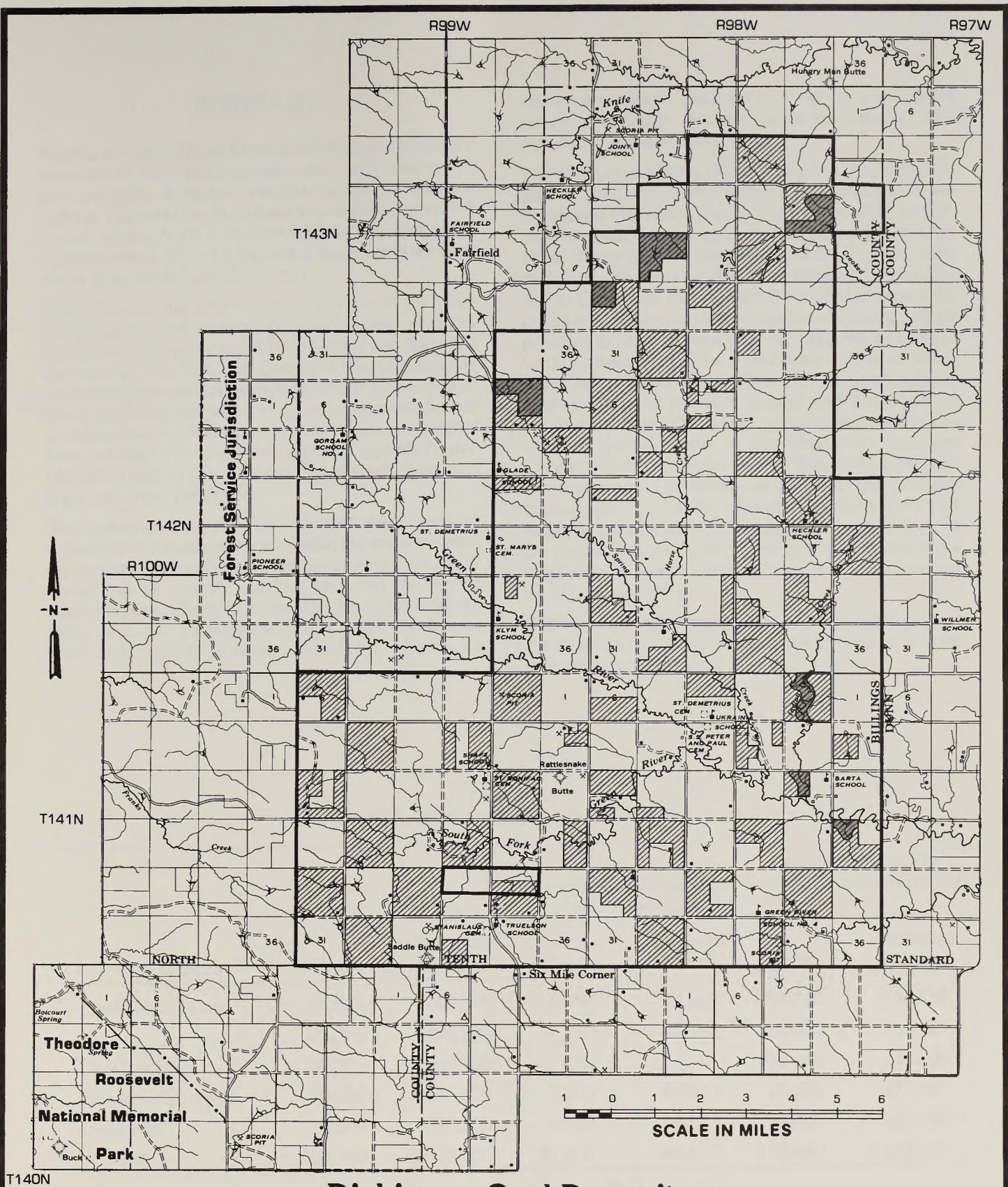
Steep Slopes and Unsuitability Criterion 16



Dickinson Coal Deposit

Unsuitability Criterion 19

- Criterion 19: Preliminary Alluvial Valley Floor
- Federal Coal Reservation



Dickinson Coal Deposit Cumulative Effect of Screens

- Areas Excluded from Further Consideration for Coal Leasing
- Federal Coal Reservation

SUMMARY

The New England Coal Deposit is the largest of the five deposits in this planning area, with total reserves of approximately 4 billion tons, over a third of which is federal. The other deposits have total estimated reserve bases ranging from 2.5 billion tons to 0.5 billion tons. Approximately 26 to 33 percent of the reserve bases of these deposits is federally owned.

Application of the coal exclusion screens in this planning area resulted in approximately 10 percent of the federal coal being excluded from further consideration for leasing. The Bowman-Gascoyne Deposit was the most heavily impacted area, with about 13 percent of the federal reserve base being excluded from further consideration for leasing. By comparison, 11 percent was excluded from the New England Deposit, 10 percent from Mott, 9 percent from Elgin-New Leipzig, and 5 percent from Dickinson.

The coal lands in the five deposits which were excluded from further consideration were affected in many cases by the application of more than one screen. Unsuitability criteria 14 and 15 (wildlife) excluded the largest percentage of federal coal tonnage. Areas excluded by other resource trade-offs in many cases overlapped with unsuitability criteria exclusions. The major

resource trade-offs involved were slope and wildlife refuge watersheds. Surface owner consultation also resulted in some exclusions.

The cumulative effects of the exclusions (see Table VII) will not preclude development of the deposits in the Southwest Planning Area. A number of other factors have a greater impact on where leasing tracts are delineated. These include the geology of the deposit, political boundaries, and existing federal leases. Large areas of the Elgin-New Leipzig and Bowman-Gascoyne deposits are covered by federal coal leases. It may only be possible to place production maintenance or by-pass tracts in these areas. The New England Deposit terminates at the Stark County line. The adjacent area in Stark County has not been studied and is unavailable for development. This limits potential for tracts in the extreme northern part of this deposit in Hettinger County. Three deposits—New England, Bowman-Gascoyne and Dickinson—extend into the National Grasslands. The viability of coal development in these deposits may be affected by the ongoing planning of the Forest Service. Finally, while the Mott Deposit has a large reserve base, its geology may limit it to a number of fairly small tracts.

Based on the existing evidence it appears that each of the deposits in this planning area can support at least one viable leasing tract.

TABLE VII
CUMULATIVE EFFECTS OF SCREENS

Coal Deposit	Total Federal Coal		Federal Coal Excluded Through Screens		Coal Acceptable For Further Consideration For Leasing	
	Acres	Thousand of Tons	Acres	Thousand of Tons	Acres	Thousand of Tons
Elgin-New Leipzig	14,620	158,700	1,280	14,217	13,340	144,483
Mott	42,300	494,100	4,260	46,998	38,040	447,102
New England	97,680	1,525,300	11,860	171,157	80,140	1,146,000
Bowman-Gascoyne	20,520	663,600	2,200	85,953	18,320	577,647
Dickinson	24,240	637,300	1,600	30,548	22,640	606,752
Total	199,360	3,472,000	21,200	348,873	172,480	2,922,027

Note: For a specific breakdown by individual screens, see Tables II, III, IV, V, and VI.

OIL AND GAS

Objective: Make all BLM-administered oil and gas reserves in this planning area available for exploration and development. Assure that exploration and development activities are carried out in such a way as to minimize environmental damage.

Rationale: The "Mining and Minerals Policy Act of 1970" declares it to be the policy of the federal government to encourage the development of the domestic minerals industry. (See rationale for coal objective.)

Recommendation: Make available for exploration and leasing all of the lands in the planning area on which the oil and gas is federally owned. Stipulations will be developed for leases and development plans on a case-by-case basis.

Rationale: Large portions of the planning area have not been properly evaluated for oil and gas. With the critical need for energy resources, as many areas as possible must be made available, while at the same time assuring that surface resource values are protected. Impacts resulting from oil and gas development normally can be mitigated through lease and development plan stipulations.

MISCELLANEOUS MINERALS

Objective: Develop a geology, energy and minerals (GEM) inventory program so that the extent, quality, and accessibility can be determined of the limited amounts of minerals that the BLM controls other than oil and gas, and coal. Where potentially economic amounts of these minerals occur, make them available for development. Mineral resources in this category include, but are not limited to: uranium, geothermal energy, salt, potash, sodium sulfate, sand and gravel, scoria, stone, and clay.

Rationale: The above-mentioned minerals and mineral materials are known to exist or possibly exist in the planning area. Some of these minerals are important at the present time, and others will become increasingly important in the future.

In the future, improved processing and mining methods will allow the development of lower grade deposits. Industrial development will also increase the demand for mineral materials, which may be partially supplied from federally controlled sources.

Recommendation: Prepare a basic data file for minerals other than coal and oil and gas resources in this planning area. This file is to be started this fiscal year and updated as needed.

Rationale: Little is known about these resources and interest in them could grow in the future. This file would supply the basic minerals data needed for a number of possible future actions, including land sales or exchanges, mineral leases, and material sales.

Recommendation: Federally controlled minerals other than coal and oil and gas must be made available for exploration and development. Applications will be handled on a case-by-case basis, and the protection of resource values will be addressed.

Rationale: Minerals are necessary for the continued growth, development, and maintenance of the Nation. Their availability must be assured where necessary, but not at the loss of more valuable resources.



CHAPTER 3

SCATTERED TRACTS

BACKGROUND

The lands on which the Bureau of Land Management administers both the surface and mineral estate (sometimes referred to as "surface" lands) make up a tiny portion of North Dakota. These lands were never in private ownership.

When North Dakota was being settled, there was not a master plan to insure that every acre would go into private ownership. The homesteaders filed on what they wanted and needed after the area was settled.

What can be said in general about BLM surface lands in North Dakota, applies to the BLM tracts in the Southwest Planning area (with the exception of the Big Gumbo Area): they are mostly odds and ends, scattered widely, and it is unlikely that the general public is aware of their locations (see Maps 29, 30, and 31).

The BLM has been concerned with the need for land pattern adjustment for many years. Of the 68,000 acres of public land managed by BLM in North Dakota, some 46,000 acres exist in a scattered pattern of relatively small tracts, ranging in size from less than 40 acres to 160 acres. Excluding the Big Gumbo Area, which is discussed in the next chapter, the Southwest Planning Area contains 124 separate BLM parcels with a total area of 11,986 acres.

To accomplish the objective of making the management of both public and adjacent private lands more effective and efficient, it is necessary to adjust the scattered or fragmented pattern of BLM lands. Lands in this planning area have been reviewed and categorized into one of three categories, using criteria found in *State Director Guidance for Resource Management in Montana and the Dakotas*, published in April 1983. These three categories are: disposal (sale, exchange, or transfer); retention; and further study.

Criteria for categorizing scattered tracts are found in Appendix G.

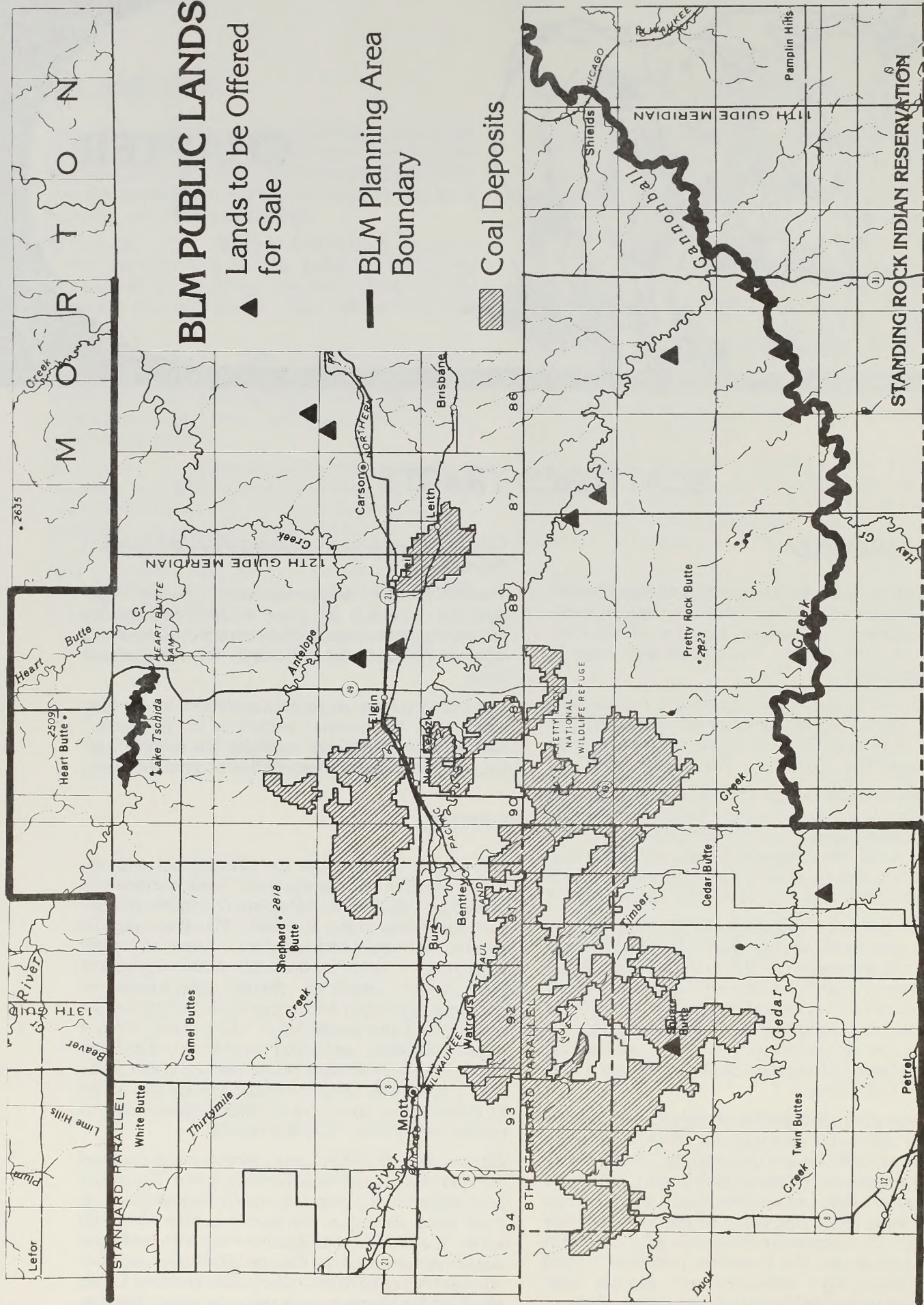
The BLM currently uses a minimal or "custodial" management approach for these lands. The following recommendations would, if they are adopted, result in a different management philosophy for the scattered tracts.

The following land use recommendations for the scattered lands are grouped according to "programs," such as lands (realty) and minerals. The overall objectives for each program precede the recommendations.

LANDS

Objective: To improve the effectiveness and efficiency of public land management through an analysis of resource values and management opportunities on scattered tracts in the Southwest Planning Area. To provide for implementation of a long-term land base adjustment program for the public lands by grouping them in three categories: disposal (sale, transfer, or exchange); retention; and further study. Sell, exchange, or transfer those public lands which could attain a higher and better use in the private sector or through management by another public agency; retain those public lands with identified public values; and adjust BLM land pattern through acquisition where possible to get the most public value and benefit.

Rationale: BLM has been concerned with the need for land base adjustment for many years. The public land pattern in the planning area is fragmented, with most tracts ranging in size from less than 40 to 160 acres. The BLM is authorized to enter into land base adjustments through the Federal Land Policy and Management Act of 1976 and other public land laws. Lands identified for retention have resource values that war-



Scale 1:500,000
1 inch equals approximately 8 miles



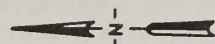
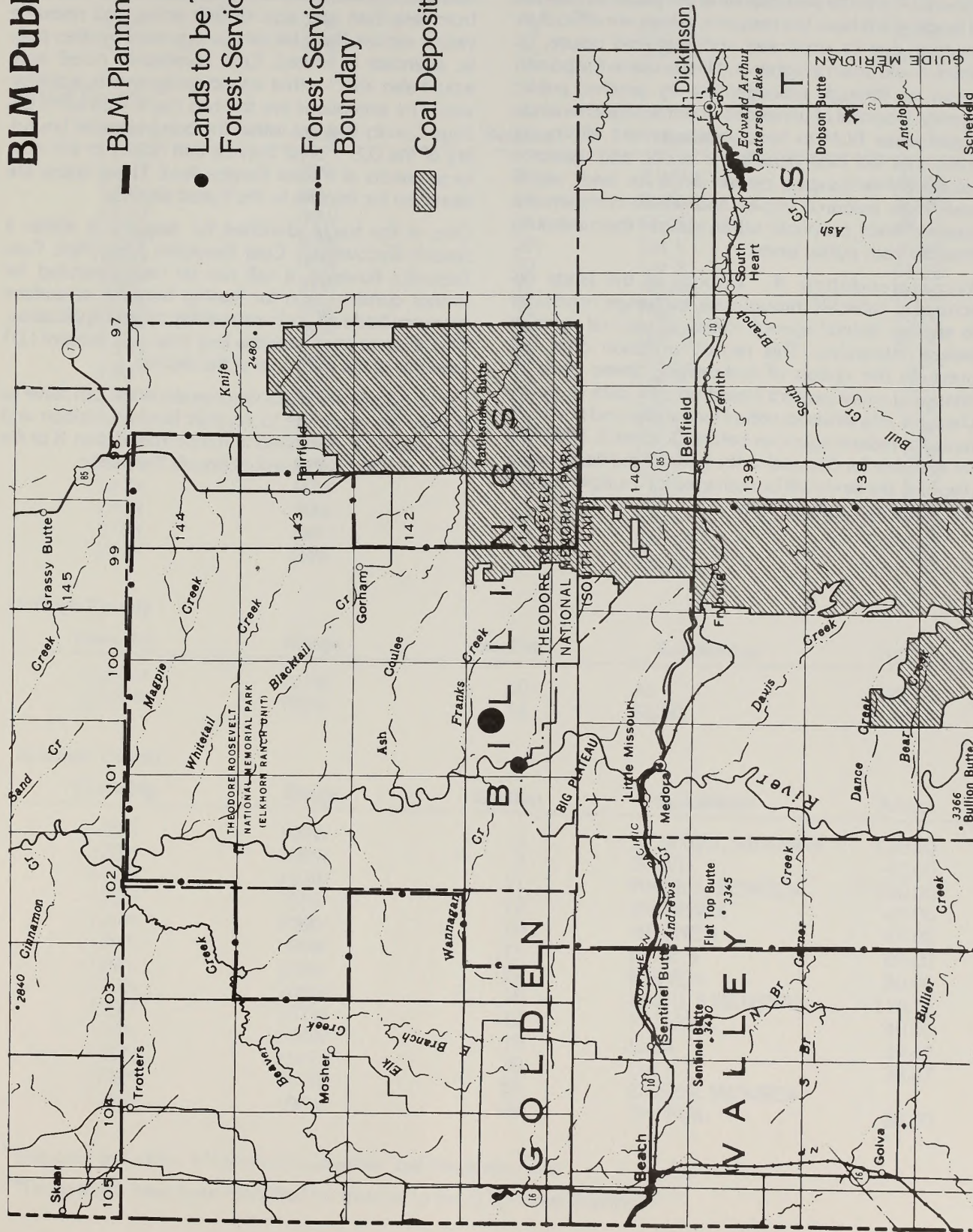
BLM Public Lands

— BLM Planning Area Boundary

• Lands to be Transferred to Forest Service

- - - Forest Service Administrative Boundary

▨ Coal Deposits



Scale 1:500,000

1 inch equals approximately 8 miles



rant retention in public ownership and can serve as core areas for acquisition of land through exchange mechanisms, with the goal being to create manageable areas of sufficient size for recreational, scientific and aesthetic purposes, as well as to help maintain ecosystem components. It is in the best interest of the public to dispose of lands which have low resource values, are difficult to manage due to small size and scattered nature, or which could attain a higher and better use in the private sector or through management by another public agency. Disposal of unneeded or unmanageable lands would allow BLM to focus management efforts on areas that will best benefit the public and resource values. By exchanging certain lands for lands which have high resource values and which complement retained lands, the public will be assured the maximum benefits from public lands.

Recommendation A: Dispose of the lands described in Table VIII through sale, exchange, or transfer to another federal agency. Retain all mineral rights in federal ownership. This recommendation does not preclude the option of reclassifying these lands or changing management based on new data or policy changes. Any lands identified for transfer and not transferred to federal agencies before October 1, 1987, will be available for disposal to the general public. Pending disposal, the lands will be managed for multiple use at a low intensity/custodial level.

Rationale: Tracts categorized for disposal by sale or exchange have limited potential for multiple-use management. Management options on these parcels are limited to low intensity/custodial administration. Cost-effective management beyond this level is clearly not feasible. The tract pattern is scattered. The tracts range from less than one acre to 640 acres, and resource values are low. Potential for management by other public agencies is limited. Cost constraints noted here would also affect other agency programs in a similar way. The exceptions are the two tracts located in Billings County that are within the administrative boundary of the U.S. Forest Service and adjoin or are near large blocks of Forest Service land. These tracts are identified for transfer to the Forest Service.

One of the tracts identified for disposal is within a Known Recoverable Coal Resource Area (Mott Coal Deposit); however, it will not be recommended for further consideration for leasing because of surface resource trade-off and unsuitability criteria application. This 40-acre tract contains less than one percent (.03 percent) of the total coal in the deposit.

Lands addressed in this recommendation can serve as a base for exchange to support land acquisition and consolidation discussed in Recommendation B or for other proposals that would benefit the public.

TABLE VIII
LANDS IDENTIFIED FOR DISPOSAL BY SALE, EXCHANGE, OR TRANSFER

Adams County

Township	Range	Section	Subdivision	Acres
129N	91W	5	NESE	40.00
131N*	93W	24	SWSW	40.00

Grant County

Township	Range	Section	Subdivision	Acres
131N	86W	22	E½SW, SE	240.00
134N	86W	4	S½SW	80.00
132N	88W	24	SENE	40.00
134N	88W	30	Lot 1	11.48
130N	86W	30	Lot 2	38.28
132N	87W	32	N½NW	80.00
135N	86W	34	NWNW	40.00
130N	89W	34	NWNE	40.00
130N	85W	10	Lot 1	2.80
130N	85W	10	Lot 2	2.10
130N	86W	26	Lot 1	7.96
129N	87W	8	Lot 1	1.20
129N	87W	9	Lot 2	0.08
134N	88W	18	Lot 1	9.69
130N	90W	27	Lot 4	0.50
130N	90W	28	Lot 3	1.50
131N	84W	30	Lot 14	0.87
131N	84W	2	Lot 10	7.85

Billings County

Township	Range	Section	Subdivision	Acres
141N**	101W	10	All	640.00
141N**	101W	18	SESE	40.00

Bowman County

Township	Range	Section	Subdivision	Acres
129N	106W	3	SE¼NW¼, NE¼SW¼	120.00
129N	106W	3	S½W¼	40.00
129N	106W	11	N½NE¼, SE¼NE¼	120.00
129N	106W	12	NW¼NW¼	40.00
129N	106W	15	NE¼NE¼	40.00
129N	106W	15	E½SE¼	80.00
129N	106W	22	E½NE¼	80.00
129N	106W	18	Lots 2, 3 NE¼SW¼	118.16
129N	107W	13	NE¼SE¼	40.00
129N	106W	19	Lot 4	39.41
129N	106W	30	Lot 1	39.47
129N	107W	24	E½SE¼, SW¼SE¼	
129N	106W	20	S½NW¼	80.00

*This tract lies within a Known Recoverable Coal Resource Area.

**These tracts have been identified for transfer to the U.S. Forest Service.

Bowman County (cont.)

Township	Range	Section	Subdivision	Acres
129N	106W	21	NW¼SW¼	40.00
129N	106W	23	SE¼NE¼	40.00
129N	106W	24	SE¼SW¼	40.00
129N	107W	12	SW¼SW¼	40.00
129N	107W	13	NW¼NE¼, N½NW¼	120.00
129N	107W	34	Lot 4	51.10
129N	104W	32	SW¼SW¼	40.00
129N	105W	35	S½SE¼	80.00
129N	105W	29	NE¼NW¼	40.00
129N	105W	23	SE¼SE¼	40.00
129N	105W	25	N½NW¼	80.00
129N	105W	26	NE¼NE¼	40.00
129N	105W	24	NW¼NW¼	40.00
129N	105W	15	NE¼NE¼	40.00
129N	105W	5	SE¼SE¼	40.00
129N	105W	5	SE¼NW¼	40.00
129N	105W	6	Lot 7	39.54
129N	105W	5	SW¼SW¼	40.00
129N	105W	8	NW¼NE¼, N½NW¼, SE¼, NW¼	160.00
129N	105W	6	Lot 4, 5	78.95
130N	105W	31	Lot 4, SE¼SW¼, S½SE¼	159.41
130N	105W	32	SW¼SW¼	40.00
130N	101W	35	SW¼SE¼	40.00
130N	104W	6	Lot 1	40.10
130N	104W	9	NW¼SW¼	40.00
130N	104W	19	S½SE¼	80.00
130N	104W	21	S½SE¼	80.00
130N	105W	7	NE¼SW¼	40.00
130N	105W	8	S½SW¼	80.00
130N	105W	10	NW¼SW¼	40.00
130N	105W	11	SE¼NW¼, E½SW¼	120.00
130N	105W	19	Lot 4, SE¼SW¼	78.92
130N	105W	22	SW¼SW¼	40.00
130N	105W	30	NW¼NE¼, S½NE¼	120.00
130N	105W	31	SW¼NE¼	40.00
130N	105W	32	NE¼SW¼	40.00
130N	105W	32	SW¼NW¼	40.00
130N	105W	32	SE¼SE¼	40.00
130N	105W	33	E½NE¼	80.00
131N	103W	30	Lot 4	39.18
131N	103W	34	NW¼SW¼	40.00
131N	103W	35	SE¼NE¼	40.00
131N	105W	15	N½SW¼	80.00
131N	105W	17	SE¼NW¼	40.00
131N	105W	17	S½SE¼	80.00
131N	105W	18	SW¼NE¼	40.00
131N	105W	21	W½NW¼	80.00
131N	105W	21	SE¼SW¼, S½SE¼	120.00
131N	105W	22	SW¼NW¼	40.00
131N	105W	26	SW¼NW¼	40.00
131N	105W	27	SE¼SE¼	40.00
131N	105W	34	NE¼, NE¼NW¼, N½SE¼	280.00
131N	105W	30	SE¼NW¼	40.00
131N	106W	6	Lot 4	36.02

Bowman County (cont.)

Township	Range	Section	Subdivision	Acres
131N	106W	13	NE $\frac{1}{4}$ SE $\frac{1}{4}$	40.00
131N	106W	23	NE $\frac{1}{4}$ NW $\frac{1}{4}$	40.00
131N	106W	24	SW $\frac{1}{4}$ NE $\frac{1}{4}$	40.00
131N	107W	2	NW $\frac{1}{4}$	159.90
132N	105W	6	Lots 1, 2, 3, 4	85.71
132N	106W	12	N $\frac{1}{2}$ N $\frac{1}{2}$	160.00
132N	105W	26	W $\frac{1}{2}$ NW $\frac{1}{4}$	80.00
132N	105W	26	S $\frac{1}{2}$ SW $\frac{1}{4}$	80.00
132N	105W	28	SE $\frac{1}{4}$ NW $\frac{1}{4}$	40.00
132N	105W	34	S $\frac{1}{2}$ NW $\frac{1}{4}$, SW $\frac{1}{4}$, W $\frac{1}{2}$ SE $\frac{1}{4}$	320.00
132N	106W	28	NW $\frac{1}{4}$ SW $\frac{1}{4}$	40.00
132N	106W	28	NE $\frac{1}{4}$ SE $\frac{1}{4}$	40.00
132N	107W	26	NE $\frac{1}{4}$ NE $\frac{1}{4}$	40.00
132N	107W	26	SW $\frac{1}{4}$, S $\frac{1}{2}$ SE $\frac{1}{4}$	240.00

Recommendation B: Retain the lands described in Table IX for multiple-use management. Through further evaluation, determine which tracts or areas would best serve as acquisition core areas for consolidation of lands through exchanges with willing parties. Explore the possibility of exchanging tracts along the Little Missouri River for other lands along the river for the purpose of blocking up federal lands, which would result in improved management and providing better public access. This recommendation does not preclude the option of reclassifying these lands based on new information or policy changes by the Department of the Interior or the BLM.

Rationale: The public lands addressed by this recommendation have high public and resource values

that warrant retention in public ownership. Several tracts are in areas, or associated with other tracts, where consolidation around them would greatly improve manageability, enhance resource values, and better benefit the public. Lands identified for disposal, in Lands Recommendation A, would serve as a base for exchange. Lands along the Little Missouri River warrant retention by themselves, because of high recreation, wildlife, and aesthetic values. These values could be enhanced where further evaluation shows it would be possible to consolidate the lands along the river into larger units. This recommendation provides for the effective and beneficial management of scattered public lands, and if implemented, it would maintain the quality of resource values.

TABLE IX
LANDS IDENTIFIED FOR RETENTION FOR MULTIPLE-USE MANAGEMENT

Bowman County

Township	Range	Section	Subdivision
129N*	106W	4	Lots 5, 6, 7
129N*	106W	15	Lots 1, 2
129N*	106W	21	Lot 7
129N*	106W	27	Lots 3, 4
129N*	106W	28	Lots 13, 15
129N*	106W	33	Lot 3, W $\frac{1}{2}$ NW $\frac{1}{4}$, W $\frac{1}{2}$ SW $\frac{1}{4}$
129N	104W	31	Lots 1, 3, 4
129N	105W	1	W $\frac{1}{2}$ SW $\frac{1}{4}$
129N	105W	2	Lots 1, 2, 3, 4
129N	105W	2	S $\frac{1}{2}$ NE $\frac{1}{4}$, E $\frac{1}{2}$ SE $\frac{1}{4}$
129N	105W	11	N $\frac{1}{2}$ NE $\frac{1}{4}$
129N	105W	12	N $\frac{1}{2}$ NW $\frac{1}{4}$, SW $\frac{1}{4}$ NW $\frac{1}{4}$
129N	105W	34	NE $\frac{1}{4}$ SE $\frac{1}{4}$
129N	105W	35	S $\frac{1}{2}$ NW $\frac{1}{4}$, SW $\frac{1}{4}$
129N	105W	35	W $\frac{1}{2}$ SE $\frac{1}{4}$
129N	104W	18	Lot 4
130N	105W	13	S $\frac{1}{2}$ SE $\frac{1}{4}$
130N	105W	24	N $\frac{1}{2}$ NE $\frac{1}{4}$, NE $\frac{1}{4}$ NW $\frac{1}{4}$
130N*	105W	6	Lot 8
130N*	106W	1	SE $\frac{1}{4}$ SE $\frac{1}{4}$
130N	105W	18	E $\frac{1}{2}$ SW $\frac{1}{4}$
130N	106W	19	NE $\frac{1}{4}$ NW $\frac{1}{4}$, Lot 1
130N*	106W	2	Lot 11
130N*	106W	21	Lot 11
130N*	106W	20	Lot 2
130N*	106W	28	Lot 3
130N*	106W	32	Lot 4
131N	105W	4	Lots 1, 2, 3, 4
131N	105W	4	SE $\frac{1}{4}$ NE $\frac{1}{4}$, E $\frac{1}{2}$ SW $\frac{1}{4}$
131N	105W	4	SW $\frac{1}{4}$ SW $\frac{1}{4}$, SE $\frac{1}{4}$
131N*	105W	30	Lots 3, 5
131N*	105W	31	Lots 1, 6, 9
131N*	106W	13	Lots 8, 9
131N*	106W	14	Lot 2
131N*	106W	23	Lots 1, 4, SE $\frac{1}{4}$ SE $\frac{1}{4}$
131N*	106W	24	Lot 5
131N	106W	25	W $\frac{1}{2}$ SW $\frac{1}{4}$, SE $\frac{1}{4}$ SW $\frac{1}{4}$
131N	106W	26	SE $\frac{1}{4}$ SW $\frac{1}{4}$, NE $\frac{1}{4}$ SW $\frac{1}{4}$
131N	106W	26	S $\frac{1}{2}$ SW $\frac{1}{4}$, W $\frac{1}{2}$ SE $\frac{1}{4}$
131N	106W	26	SE $\frac{1}{4}$ SE $\frac{1}{4}$
131N	106W	27	SE $\frac{1}{4}$ SE $\frac{1}{4}$
132N	105W	20	All
132N	105W	32	N $\frac{1}{2}$, E $\frac{1}{2}$ SE $\frac{1}{4}$, SW $\frac{1}{4}$ SE $\frac{1}{4}$ SW $\frac{1}{4}$ SW $\frac{1}{4}$

*These are tracts located along the Little Missouri River.

Recommendation C: Retain the following lands pending further study. Complete assessments of these tracts and place them in retention or disposal categories.

Township	Range	Section	Subdivision	Acres
129N	105W	24	SW $\frac{1}{4}$ NE $\frac{1}{4}$	40
129N	105W	24	SW $\frac{1}{4}$ SE $\frac{1}{4}$	40
129N	105W	14	NW $\frac{1}{4}$ NE $\frac{1}{4}$, E $\frac{1}{2}$ NW $\frac{1}{4}$, SW $\frac{1}{4}$ NW $\frac{1}{4}$, NE $\frac{1}{4}$ SW $\frac{1}{4}$	200
129N	105W	10	SE $\frac{1}{4}$ SW $\frac{1}{4}$, SW $\frac{1}{4}$ SE $\frac{1}{4}$	80
131N	103W	34	NE $\frac{1}{4}$ NW $\frac{1}{4}$	40
131N	105W	10	N $\frac{1}{2}$ NW $\frac{1}{4}$, SW $\frac{1}{4}$ NW $\frac{1}{4}$	120

Rationale: These tracts have potentially significant cultural resource values that may be eligible for inclusion on the National Register of Historic Places. An assessment of the resource values is necessary before the lands can be categorized for retention or disposal.

Objective: To provide for all applicable rights-of-way across public lands within an environmentally acceptable manner.

Rationale: Local and regional energy developments point to a probable need for additional pipelines, power lines, and roads in this area. Public lands should support these needs to the extent possible without loss of higher public values.

Recommendation D: Keep public lands within this planning area open to rights-of-way applications. Each application should be evaluated on its own merits. Take measures to protect the environmental values.

Rationale: Most future rights-of-way applications in this area would probably be energy related. As energy needs are of exceptionally high priority in our nation today, we must take positive action to develop and transport energy resources. In most cases mitigating measures can be taken to eliminate or limit significant adverse environmental impacts. Where this cannot be achieved, some flexibility to relocate proposed facilities should be allowed.

The planning area contains oil and gas resources and coal deposits of high to moderate potential; however, it is impossible to determine at this time which specific public lands might be needed for roads or rights-of-way in support of coal or oil and gas development in the future.

Recommendation E: Eliminate unauthorized uses on public lands. Determine the ultimate tenure of land where permanent unauthorized uses/activities have occurred (e.g., agricultural activities, powerlines, or occupancy) using the following alternatives:

1. Authorization under permit or lease;
2. Transfer to private ownership through exchange or sale;

3. Termination of the use and restoration of the land.

Rationale: Unauthorized use of public lands denies the public lawful revenues and can damage public land resources or be detrimental to authorized users. Elimination of all unauthorized use of public lands is a goal set forth in State Director Guidance and BLM Policy.

COAL

The overall objectives of the BLM coal program are to: make federal coal resources available to meet present and future market demand; assure that mineral exploration, development, and extraction are carried out in such a way as to minimize environmental damage; receive fair market value for minerals subject to lease; and to provide for orderly and timely development of the resource.

Rationale: The "Mining and Minerals Policy Act of 1970" declares it to be the policy of the Federal Government to encourage the development of the domestic minerals industry. (See rationale for split-estate coal objective.)

Recommendation: Federal coal reserves in SW $\frac{1}{4}$ SW $\frac{1}{4}$ of Section 24, T131N, R93W, in Adams County, will not be carried forward for further consideration for leasing. This tract has been categorized for disposal. All minerals underlying this tract will be retained by the federal government.

Rationale: The coal reserves for this tract are not being carried forward for further consideration for leasing, due to application of the coal screens (noted in the Split-Estate Coal Recommendations for the Mott Deposit). Sale of that tract could preclude development of the underlying federal coal.

Recommendation: Leave all the isolated tracts in this planning area open for potential coal exploration. However, applications will be assessed and evaluated on a case-by-case basis. These specific evaluations will determine what mitigation measures should be

required as a condition for issuing the coal exploration license.

Rationale: All of the area has not been adequately explored to determine the exact nature and quality of the coal resources in the planning area. This information is a vital part of overall energy planning in the area, and only through exploration programs can we obtain that information. This exploration can occur without causing significant adverse impacts to the environment.

Recommendation: Issue licenses to mine coal (following the guidelines set in 43 CFR 3400) to qualified applicants within those areas designated acceptable for further consideration for leasing; however, each application must be assessed on its individual merits.

Rationale: These licenses are specifically authorized in Section 8 of the Mineral Leasing Act of 1920. They are strictly to provide for local domestic need for coal. Under the provisions of the regulations individual or associations of individuals are allowed to mine federal coal for their own use. A license to mine may be issued to a municipality solely for nonprofit mining and disposal of coal to its own residents. The Bureau may also authorize a recognized and established relief agency of any state to take federally owned coal within the state and provide it to families on its rolls who require the coal for household use but are unable to pay for the coal. These licenses do not require the payment of rentals or royalties. Any mining activities authorized by a license are subject to the Surface Mining Control and Reclamation Act.

OIL AND GAS

Objective: Make all BLM-administered oil and gas reserves on these tracts available for exploration and development. Assure that exploration and development activities are carried out in such a way as to minimize environmental damage.

Rationale: The "Mining and Minerals Policy Act of 1970" declares it to be the policy of the federal government to encourage the development of the domestic minerals industry. (See rationale for split-estate coal objective.)

Recommendation: Make available for exploration and leasing all of the lands in the planning area on which the oil and gas is federally owned. Stipulations will be developed for leases and development plans on a case-by-case basis.

Rationale: With the critical need for energy resources, as many areas as possible must be made available, but surface resource values must be protected. Impacts resulting from oil and gas development normally can be mitigated. Lease and development plan stipulations will assure these mitigations.

MISCELLANEOUS MINERALS

Objective: Develop a geology, energy, and minerals (GEM) inventory program, so that the extent, quality, and accessibility can be determined of the limited amounts of minerals that the BLM controls other than oil and gas and coal. Where potentially economic amounts of these minerals occur, make them available for development. Mineral resources in this category include but are not limited to: uranium, geothermal energy, salt, potash, sodium sulfate, sand and gravel, scoria, stone, and clay.

Rationale: The minerals and mineral materials mentioned above are known to exist or possibly exist in the planning area on isolated tracts. Some of these minerals are important at the present time and others will become increasingly important in the future.

Improved processing and mining methods will allow the development of increasingly lower grade deposits. Industrial development will also increase the demand for mineral materials, which may be partially supplied from federally controlled sources.

Recommendation: Prepare a basic data file for minerals other than coal and oil and gas resources for the scattered tracts in this planning area. This file is to be started this fiscal year and updated as needed.

Rationale: Little is known about these resources and little interest is being shown at this time, but interest could grow in the future. This file would supply the basic minerals data needed for a number of possible future actions. These include land sales or exchanges, mineral leases, and material sales.

Recommendation: Federally controlled minerals other than coal and oil and gas must be made available for private industry, local governments, and private individuals if requested. Requests for disposal will be handled on a case-by-case basis, with appropriate analysis to protect other resource values.

Rationale: Minerals are necessary for the continued growth, development and maintenance of the Nation. Their availability must be assured where necessary, but not at the loss of more valuable resources.

RANGE

Objective: Make available for grazing all unleased tracts suitable or desirable for grazing. Enter into short-term nonrenewable leases for unleased tracts categorized for disposal if the tracts are still retained by BLM two years after the adoption of the MFP. Continue leasing lands already leased for grazing unless other circumstances dictate changes. Categorize all tracts for management priority.

Rationale: Many of the isolated parcels are under lease. Unauthorized grazing occurs on some sites.

These areas should be leased. Tracts identified for disposal should not be leased under standard leases because this may encumber disposal actions. Short-term nonrenewable leases would allow authorized grazing without encumbering disposal actions.

Current BLM grazing policy requires that we assign management priorities among allotments or groups of allotments within a planning area. It provides for placing similar allotments into one of three categories based upon our current objectives to: (1) maintain their current satisfactory conditions; (2) improve their current unsatisfactory conditions; or (3) manage the allotments custodially, while protecting current resource values.

Recommendation: Lease the following tracts (which are not currently leased) for grazing and manage at the custodial level. Do not lease those tracts that are classified for disposal in the Final MFP. Those tracts categorized for disposal which are still retained by BLM two years after the adoption of the MFP will be offered for short-term nonrenewable lease and managed at the custodial level.

Bowman County

Township	Range	Section
131N	105W	Sec. 31: Lot 9
130N	104W	Sec. 6: Lot 1
130N	101W	Sec. 35: SW¼SE¼
129N	106W	Sec. 19: Lot 4
129N	106W	Sec. 30: Lot 1

Grant County

Township	Range	Section
130N	86W	Sec. 3: Lot 2
131N	86W	Sec. 22: E½SW¼, SE¼
134N*	86W	Sec. 4: S½SW
135N	86W	Sec. 34: NW¼NW¼
132N	87W	Sec. 32: N½NW¼
132N	88W	Sec. 24: SE¼NE¼
130N	89W	Sec. 34: NW¼NE¼

Adams County

Township	Range	Section
129N	93W	Sec. 24: SW¼NW¼

Billings County

Township	Range	Section
141N	101W	Sec. 18: SE¼SE¼

*Leased on a yearly basis pending final MFP.

Rationale: Unauthorized grazing use, small size, and low percentage of federal range make custodial management the most cost-effective and logical option. These tracts are rated in fair to good range condition. If they are retained, short-term leases should be issued and management should continue at the custodial level. Short-term leases will insure that the public will be compensated for use of the land by livestock, pending final disposition of these tracts.

Recommendation: Continue to lease for grazing those tracts already leased and manage at the custodial level. This recommendation does not preclude the option of modifying or cancelling the existing leases consistent with the disposal categorization and as provided for under 43 CFR 4120.2-1(d) and 4130.2(d)(3). Leases subject to these provisions will be renewed on a short-term basis pending disposal.

Rationale: Because the tracts are small in size and widely scattered and make up a small percentage of the operators' grazing lands, custodial management is the most logical. Range conditions on most of the allotments are satisfactory, indicating little need for improvement. Opportunities for positive economic return on public investment do not exist on these allotments. These lands are currently under long-term lease, expiring in 1989.

WATERSHED

Upland Watersheds

Objective: Avoid surface actions which significantly impact existing vegetative cover.

Rationale: Upland watershed areas fall into two hydrologic categories, prairie uplands and badlands. BLM policy and the State 208 program direct the Bureau to protect soil and water resources by ensuring an adequate amount of vegetative cover in each of these hydrologic areas.

Badland areas are fragile and of low productivity, and accelerated soil erosion once underway cannot be readily reversed. Therefore, surface actions which negatively impact existing vegetative cover must be restricted.

Recommendation: Maintain or improve present vegetative cover to minimize soil erosion on tracts to be offered for short-term lease. Grazing lessees should be encouraged to follow 208 best management practices developed by local soil conservation districts.

Rationale: Watershed degradation accelerates soil erosion, which causes a loss in soil productivity and contributes to poor water quality, thus violating Bureau policy and Public Law 92-500, Section 208.

Riverine Floodplains

Objective: Avoid surface actions which impact the river floodplains during the peak runoff period of March through June.

Rationale: Accelerated soil erosion degrades the watershed. The loss of soil productivity and increased nutrient loading contributes to poor water quality. To comply with existing Bureau policy and Public Law 92-500, Section 208, surface actions which negatively impact existing vegetative cover must be restricted during the peak runoff period. This will protect the floodplain and comply with Executive Order 11988.

Recommendation: Within the limits of custodial management, maintain or improve present vegetative cover in riparian areas which will be offered for grazing lease. Grazing lessees should be encouraged to follow best management practices developed by local soil conservation districts. Allow no use for which watershed disturbances are nonmitigable. Surface disturbing activities should be kept to a minimum level. Require that mitigating measures are applied to all surface-disturbing activities, and assess them on a case-by-case basis.

Rationale: Watershed degradation accelerates soil erosion, which causes a loss in soil productivity and contributes to poor water quality in the area, thus violating Bureau policy and Public Law 92-500, Section 208.

WILDLIFE RESOURCES

General

Objective A: Manage for wildlife habitat on isolated tracts that are retained in BLM ownership which have good potential for wildlife enhancement. Develop cost-effective management for BLM retention lands at levels reflecting resource values, priorities, and manageability.

Rationale: Parcels addressed by this objective are not considered crucial to the well-being of the wildlife resources but are of sufficient value to warrant custodial management by BLM and more intensive management by NDGF under cooperative management agreements. Several of the scattered, isolated tracts of BLM land have wildlife values that would respond favorably to more intensive management, resulting in enhanced wildlife populations, productivity, and diversity for relatively large areas. Since proper livestock grazing management systems are often impractical on small tracts, priority should be given to wildlife habitat enhancement on these areas.

Recommendation A-1: The North Dakota Game and Fish Department (NDGF) will be given the opportunity to nominate disposal tracts for cooperative management. Such tracts should be identified by NDGF as

being essential or critical to wildlife programs which are ongoing or being planned for the purpose of establishing water and habitat improvement and enhancement projects. Nominations should be made during the public comment period. Preliminary plans outlining cooperative management objectives and proposed projects must be received by the Dickinson District by September 1, 1983. Nominations not fully supported will be reclassified for disposal, and offered for sale to the general public. Those lands determined to be eligible for cooperative management will be retained.

Rationale: This recommendation provides for the effective management of resource values present on BLM isolated tracts. If implemented, it will result in long-term benefits to the public and help maintain wildlife and other resources for future generations. This would be accomplished by offsetting habitat loss and ensuring that ecological islands are maintained and enhanced through intensive management by NDGF, ensuring diversity and stability in the total ecosystem.

Wildlife

Objective B: Maintain, enhance, and improve wildlife habitat on public land for the greater benefit of the public and the wildlife resources. Offset habitat losses resulting from changing land use in the area. Develop management plans, consolidate lands in key areas, and initiate sound monitoring studies to achieve this goal.

Rationale: Public land provides an important reservoir for wildlife species in the area. Changing land use is steadily decreasing habitat components which are necessary for the continued well-being of the wildlife resource in the region. The present scattered land pattern is not conducive to effective wildlife habitat management. Consolidation around key areas would alleviate this and provide for better, more cost-effective management that is beneficial to the public and the wildlife resources. Enhancement and improvement of wildlife habitat will help offset habitat loss due to changing land use in the area. Greater benefits to the public will be realized by ensuring that sufficient populations of wildlife are maintained throughout the area for hunting, nature study and scientific studies. Several species which have restricted distribution or have limited population in North Dakota such as pronghorn antelope, sage grouse and several species of raptors are found on public land. Management programs that benefit these species will ensure that they remain a part of the native fauna in North Dakota.

Recommendation B-1: Implement management plans to improve wildlife habitat by planting trees, shrubs, and food patches; developing water where needed; and employing other habitat management practices. Acquire and consolidate lands around public lands retained in federal ownership where possible.

Rationale: Lands identified for retention in Lands

Recommendation B, have good potential for wildlife habitat management that will benefit numerous species, including pronghorn antelope, sage grouse, raptors, deer, and furbearers. Their retention is based in part on their high wildlife values and potential. Consolidation and blocking of public lands will provide larger, more manageable units in which to manage for wildlife habitat. Larger blocks of public lands will act as a buffer to land use changes on adjoining private lands and will provide areas of sufficient size to accommodate the habitat requirements of most wildlife species. The present public land pattern is difficult to manage for wildlife habitat and very few wildlife species' habitat requirements are provided in full by the small scattered tracts. Consolidation of public lands around the areas retained would allow cost-effective wildlife habitat management that would benefit wildlife and the public over an area much larger than the present block of lands.

Recommendation B-2: Retain in BLM ownership all lands adjacent to the Little Missouri River and implement management for wildlife habitat. Where the possibility exists, block up BLM land pattern along the river to facilitate better management.

Rationale: Lands adjacent to the Little Missouri River contain riparian and associated upland habitat. These types of areas are critical sources of biological diversity. The majority of wildlife either depend on wetland-riparian areas or use them proportionally more than any other habitat type. Although the parcels administered by BLM are small, their importance to the ecosystem and the public warrants their retention. Additionally, these parcels have excellent potential for intensive management that would create habitat islands with increased values for wildlife and the public. Large portions of the riparian habitat have been destroyed. Maintaining and improving these areas can help offset loss of riparian habitat and will increase the diversity and stability of the total ecosystem. These areas can also be used to set an example of proper management of riparian areas and serve as a nucleus for rehabilitating adjacent riparian habitat along the river.

RECREATION

Objective: Enhance the recreation potential of the public lands in the MFP area within the constraints of their size and scattered ownership pattern.

Rationale: The BLM has limited opportunity to manage an active recreation program in North Dakota, but there are some tracts of public land in the planning area that should be managed for their recreational potential.

Recommendation: Maintain the option to enter into cooperative management agreements with the North Dakota Parks and Recreation Department for all BLM surface tracts with high recreation values.

Rationale: The isolated nature of the federal tracts precludes any intensive BLM recreation program in the MFP area; however, some areas may be important to ongoing state recreational programs. These areas could possibly be more effectively managed by a state agency.

Recommendation: Lands around tracts retained in federal ownership should be blocked up where possible to enhance recreational and cultural resource values present in these areas.

Rationale: Blocking up lands around lands retained in federal ownership will provide better access for public use. This will serve to increase the recreational experience for the general public. Hunting, hiking, photography, specimen collecting (rock, artifact, fossil) will probably be the primary recreational uses.

Limited land acquisition in these areas is also consistent with State Director Guidance. Tracts with known paleontologic sites (such as Mud Buttes) are documented in the literature. Other areas have important fossil bearing exposures (Fox Hill, Hell Creek, Ludlow formations) which have significant site potential.

Other tracts and their surrounding areas also contain important cultural resource sites. Some of these areas may be eligible for nomination to the National Register of Historic Places, based on their potential to produce information important to the prehistory of western North Dakota.

CULTURAL RESOURCES

Objective: Protect and preserve representative samples of the full array of cultural resources for the benefit of present and future generations. Ensure that cultural resources are given full consideration in all land use planning and management decisions.

Rationale: Cultural resources are recognized as fragile, nonrenewable resources with scientific and sociocultural values, representing an important and integral part of our Nation's heritage. Protection and management of cultural resources under BLM jurisdiction and avoidance of inadvertent loss or destruction of these resources is a primary goal of BLM's cultural resources management program.

Recommendation: Begin a program of testing and evaluation of known cultural resources programs on federal lands in the MFP area, in support of a management plan which will:

1. Manage cultural resources so that scientific and sociocultural values are not diminished but rather maintained and enhanced;
2. Ensure that the Bureau's undertakings avoid inadvertent damage to cultural resources, both federal and non-federal.

Rationale: Current legal and regulatory requirements call for intensive inventory of public lands before actions are taken that change the status or use of the land. Also, surface-disturbing activities on federal lands require an intensive inventory. The survey activity should take place as early as possible to minimize effects on either cultural resources or planned projects.

A management plan based on site potential and importance that protects cultural resource values and promotes scientific and sociocultural values is necessary to ensure that the record left by man is preserved for future generations in understanding the history and prehistory of the area.

A number of cultural resource sites have been located on isolated tracts in the Southwest MFP Area. They do not all appear to be of the same importance in understanding prehistory. Also, not all of the known resources are subject to the same degree of negative impacts. Therefore, they have been prioritized for field work. This information is found in the URA Recreation Appendix, which is available for public review at the Dickinson District Office.

PALEONTOLOGY

Objective: Protect paleontological resource values by reducing deterioration and inadvertent loss of paleontological sites and areas.

Rationale: Paleontological resources are a part of the national heritage, and BLM must manage the wisest use of this resource. The primary purpose of BLM management of paleontological values is protection. Paleontological remains are useful for reconstructing environments of the past, and for correlating geological formations. This type of resource tends to be relatively rare.

The 1906 Antiquities Act does not specifically list fossils, but rather "objects of historic or scientific interest." Because of this provision, scientific research has been conducted under an Antiquity Permit. Recently this interpretation has been questioned; but even if it is dropped, research in paleontology will probably continue under some type of permit system. The permit system provides a measure of quality control and supervision over the extraction of fossils from public lands.

Potential consumers of the resource are scientific and research institutions, educational organizations, and recreational collectors.

Recommendation: A number of paleontological sites are known or suspected to exist on the scattered tracts in this planning area. Before allowing surface-disturbing activities on lands with known sites, the significance of the sites will be assessed by BLM personnel. Additionally, if any paleontological sites are

discovered during surface-disturbing activities, operations will be required to cease and a report will have to be filed with the BLM. The significance of the sites will be assessed. In all cases, suitable mitigation measures will be prescribed for significant sites.

Rationale: Surface disturbance could have a detrimental impact by destroying a rare resource of scientific importance. Proper mitigating measures could lower that impact to acceptable levels.

Recommendation: Maintain an inventory of paleontological sites and areas, which can be used to identify locations that need special protection.

Rationale: BLM is required to protect paleontological values. At present there is very little specific knowledge of this resource in the planning area and, in all probability, important sites are deteriorating or being destroyed because of this lack of knowledge. The management objective of reducing deterioration and protecting the resource from loss cannot be met without an inventory.

Recommendation: Retain federal lands that fit in one or more of the following classes:

1. Land with known valuable paleontologic sites, such as the Mud Buttes area;
2. Land with extensive bedrock exposures, such as buttes and cliff areas;
3. Any land underlain by the Hell Creek or Ludlow formations that contains paleontologic sites or bedrock exposures.

If the acquisition of new properties is proposed, give priority to tracts that fit in the above classes.

Rationale: It has been proposed to consolidate BLM administered land in Bowman County. This proposal will mitigate potential negative impacts. The lands proposed for retention or acquisition are either known or suspected to contain paleontologic sites or overlie formations of great scientific interest.

BIG GUMBO MANAGEMENT AREA

The Big Gumbo Management Area is located in the southwest portion of Bowman County, North Dakota between the Little Missouri River and the Montana state line (see Map 30). It is the only solidly blocked area of public domain in North Dakota consisting of 22,187.15 acres. In general, the topography is gently rolling hills, and the vegetation is primarily grassland with areas of sage-grassland. Soils are generally limiting for high production of vegetation and are unique in North Dakota. The primary uses of the area are livestock grazing, oil and gas development, and limited recreational use by hunters. The following land use recommendations for the Big Gumbo Management Area are grouped according to programs, such as lands (realty) and minerals. The overall objectives for each program precede the recommendations.

LANDS

Objective: To improve the effectiveness and efficiency of public land management through an analysis of resource values and management opportunities in the Big Gumbo Management Area. To provide for implementation of a long-term land base adjustment program for this area because of identified public values, including adjustments of the BLM land pattern to get the most public value and benefit.

Rationale: BLM has been concerned with the need for land base adjustment for many years. Authorization to enter into land base adjustment is found in the Federal Land Policy Management Act of 1976 and other public land laws. Lands identified for retention have resource values that warrant retention for public ownership. Limited acquisition of areas adjacent to the Big Gumbo will benefit other resource programs by providing additional land blocking. This in turn will increase overall management efficiencies for field programs.

Recommendation: The Big Gumbo Management Area has been categorized for retention. BLM will pursue acquisition of private lands that will enhance our management objectives in the area. Acquisition will be accomplished through direct exchange or land exchange pooling. Disposal of lands in the planning area will form a base of exchange.

Rationale: There are more opportunities for multiple-use management in large blocks of public lands because BLM has more direct control. The Big Gumbo Management Area consists of over 22,000 contiguous acres. Three grazing allotments have been established and range improvements built. The area has extensive oil and gas development.

Objective: To provide for all applicable rights-of-way across public lands in an environmentally acceptable manner.

Rationale: Local and regional energy developments point to a probable need for additional pipelines, power lines, and roads in this area. Public lands should support these needs to the extent possible without loss of higher public values.

Recommendation A: Keep public lands within the Big Gumbo Management Area open to rights-of-way applications. Each application should be evaluated on its own merits. Take measures to protect the environmental values.

Rationale: Most future rights-of-way applications in this area would probably be energy related. As energy needs are of exceptionally high priority in our nation today, we must take positive action to develop and transport energy resources. In most cases mitigating measures can be taken to eliminate or limit significant adverse environmental impacts. Where this cannot be achieved, some flexibility to relocate proposed facilities should be allowed.

The planning area contains oil and gas resources and coal deposits of high to moderate potential; however, it is impossible to determine at this time which specific public lands might be needed for roads or rights-of-way in support of coal or oil and gas development in the future.

Recommendation B: Eliminate unauthorized uses on public lands within the Big Gumbo Management Area. Determine the ultimate tenure of land where permanent unauthorized uses/activities have occurred (e.g., agricultural activities, powerlines, or occupancy), using the following alternatives:

1. Authorization under permit or lease;
2. Transfer to private ownership through exchange or sale;
3. Termination of the use and restoration of the land.

Rationale: Unauthorized use of public lands denies the public lawful revenues and can damage public land resources or be detrimental to authorized users. Elimination of all unauthorized use of public lands is a goal set forth in State Director Guidance and BLM Policy.

OIL AND GAS

Objective: Make all the BLM-administered oil and gas reserves in this area available for exploration and development. Assure that exploration and development activities are carried out in such a way as to minimize environmental damage.

Rationale: The "Mining and Minerals Policy Act of 1970" declares it to be the policy of the federal government to encourage the development of the domestic minerals industry. (See rationale for split-estate coal objective).

Recommendation: Make available for exploration and development all lands in the Big Gumbo Management Area. Stipulations will be developed for leases and development plans on a case-by-case basis through the use of the District Programmatic Oil and Gas Environmental Assessment Record and through on-site inspection.

Rationale: With the Nation's critical need for energy resources, as many areas as possible must be available for exploration and development. Established procedures and processes must be used to assure that environmental values are protected. Environmental impacts due to oil and gas development can normally be mitigated through lease and development plan stipulations.

MISCELLANEOUS MINERALS

Objective: Develop a geology, energy and minerals (GEM) inventory program so that the extent, quality, and accessibility can be determined of the limited amounts of minerals that the BLM controls other than oil and gas and coal. Where potentially economic amounts of these minerals occur, make them available for development. Mineral resources in this category include but are not limited to: uranium, geothermal energy, salt, sand and gravel, stone, and clay.

Rationale: Minerals and mineral materials are known to exist in the area. Some of these minerals are important at the present time and others will become increasingly important in the future.

Improved processing and mining methods will allow the development of increasingly lower grade deposits. Industrial development will also increase the demand for mineral materials, which may be partially supplied from federally controlled sources.

Recommendation: Federally controlled minerals other than coal and oil and gas must be made available for exploration and development. Applications will be handled on a case-by-case basis with appropriate analysis to protect other resource values.

Rationale: Minerals are necessary for the continued growth, development, and maintenance of the Nation. Their availability must be assured where necessary but not at the loss of more valuable resources. The types and locations of these actions are unpredictable and can best be handled on a case-by-case basis. An environmental assessment will be prepared for individual cases to ensure that other environmental factors are considered.

Recommendation: Prepare and maintain a basic date file for minerals other than coal and oil and gas resources of this area. This file is to be started in Fiscal Year 1983 and updated as needed.

Rationale: Little is known about these resources and little interest is being shown at this time, but interest could grow in the future. This file would supply the basic minerals data needed for a number of possible future actions. These include land sales or exchanges, mineral leases, and material sales.

PALEONTOLOGY

Objective: Protect paleontological resource values by reducing deterioration and inadvertent loss of paleontological sites and areas.

Rationale: The primary purpose of BLM management of paleontological values is protection. This type of resource is relatively rare. Paleontological remains are useful for reconstructing environments of the past and for correlating geological formations.

Recommendation: Before allowing surface disturbing activities on lands with known sites, the significance of the sites will be assessed by BLM personnel. Additionally, if any paleontological sites are discovered during surface disturbing activities, require that operations cease and a report be filed with the BLM. Assess the significance of the sites. In all cases, suitable mitigation measures will be prescribed for significant sites.

Rationale: Surface disturbance could have a detrimental impact by destroying a rare resource of scientific importance. Proper mitigating measures applied on site-specific basis could lower that impact to acceptable levels.

RANGE

Objective: Maintain the range resource in good to excellent condition and ensure that the trend continues upward on range that is improving and static on range that is at or near potential. Continue current levels of authorized use.

Rationale: The Taylor Grazing Act, Federal Land Policy and Management Act, and Bureau policy require that the rangeland resources be managed on the principles of multiple use while maintaining a sustained yield.

The three allotments that make up most of the public domain lands in the Big Gumbo Management Area went under intensive management in 1968 and 1969. Range condition over much of the area has been maintained in good to excellent condition. Areas that were formerly fair and poor show a significant improvement. The grazing systems are working, as is indicated by the abundance and vigor of desirable plant species.

Recommendation: Continue the authorized use on the three allotments covered by allotment management plans (AMPs) and manage at maintenance level. Monitor to insure compliance and determine if management objectives are being met. Any changes in elements of the AMP will be made in accordance with monitoring results.

AMP Name	Authorized Use
Antelope Butte	913 AUMs
Big Gumbo	1,116 AUMs
Cedar Hills	1,630 AUMs

Rationale: At this point it appears that a balanced use exists between wildlife and livestock use. Therefore, current authorized use on the three allotments covered by AMPs should be continued and managed at the maintenance level. A monitoring plan will be established during the next fiscal year to ensure compliance and determine if management objectives are being met.

Recommendation: Where feasible, incorporate adjacent public domain lands into the existing allotment management plans (AMPs)

Rationale: This would bring additional acres under intensive management and add efficiency to the AMPs.

WATERSHED

Objective: Provide improved watershed condition to enhance the quality of the soil and water resources.

Rationale: The BLM strives to manage the resources on public lands in a manner that will protect the quality of the environment and to meet the needs of the people. It is essential to minimize erosion and maintain or improve soil productivity in order to maximize the benefits that people receive from other resources, as well as provide the highest quality of soil and water possible. Watershed condition is a key factor in controlling erosion and productivity.

Recommendation: Initiate appropriate monitoring studies to assess the effects of current management actions on watershed condition and trend. Implement mitigating measures through activity planning.

Rationale: Based on limited data, the three existing allotment management plans have effected positive changes in the watershed condition in this area. Some limited conflict areas are found in high livestock concentration areas. Long-term mitigation should only be implemented after monitoring and water source location study identify potential mitigation measures.

Recommendation: Initiate appropriate field studies to determine the effectiveness of current oil and gas lease stipulations for maintaining good watershed con-

ditions. Lease stipulations will be modified accordingly, as new permits are issued.

Rationale: Information is not sufficient at the present time to assess the effect of the oil and gas field on the local water quality.

WILDLIFE

Objective: Maintain, enhance, improve and create wildlife-fisheries habitat on public land for the greater benefit of the public and to help offset habitat losses caused by changing land use and man's activities in the area. Develop management plans, consolidate land, and initiate sound monitoring studies to achieve this goal.

Rationale: Public land provides an important reservoir for wildlife species in the area. Changing land use and man's activities are steadily decreasing habitat components which are necessary for the continued well-being of the wildlife resources in the region. Management of public lands to enhance, improve, and create habitat will help offset this loss of habitat. Benefits to the public will be realized by ensuring that sufficient populations of wildlife are maintained in the area for hunting and scientific study. Several species which have restricted distribution or limited populations in North Dakota—such as pronghorn antelope, sage grouse and several species of raptors—are found on public land. Management programs that benefit these species will ensure that they remain a part of the native fauna in North Dakota.

Recommendation: Develop water sources to better facilitate dispersion and productivity of pronghorn antelope, mule deer, sage grouse, and other wildlife species in the area. Maximize waterfowl production, within the constraints of multiple-use management, by developing nesting islands and structures, providing adequate nesting cover, and utilizing other waterfowl habitat management techniques. Provide wildlife access and cover on livestock water developments.

Rationale: Water is generally a limiting factor for wildlife in semi-arid areas such as southwestern North Dakota. Development of water sources of good quality will enhance productivity and dispersion of wildlife by providing better supplies of a limiting resource.

Recommendation: Provide for unimpaired movement of wildlife species such as pronghorn antelope and mule deer by ensuring proper construction of new fences and modification or removal of existing fencing barriers.

Rationale: Net and five-strand barbed wire fencing was installed during implementation of the allotment management plans. Improperly designed and placed fences have contributed to heavy mortality and reduced populations of both pronghorn and mule deer. Within

the Big Gumbo Management Area several miles of net wire and 5-strand barbed wire fencing severely restrict free movement of these species and constitute a hazard to their well-being. BLM manual 1737 provides guidance for the proper construction and modification of fences in antelope and deer ranges. Construction standards for fencing do not include net wire or five-strand barbed wire.

Recommendation: Improve habitat conditions in areas where monitoring indicates undesirable competition exists between livestock and wildlife and where habitat conditions are not being maintained in the desirable condition. Develop a management plan based on resource potential, monitoring results, and long-term objectives for wildlife populations in the area that will enhance, improve, or create wildlife habitat.

Rationale: Overall, wildlife and livestock conflicts are not serious in the management area. However, conflicts do and can exist that can be corrected by utilizing information from monitoring to determine future management actions. Monitoring will be required to assess the effectiveness of management programs and determine the extent that management objectives are being met. Improvement of habitat conditions in identified conflict areas will benefit range and watershed as well as wildlife resources. Development of a management plan will allow for the logical and orderly development and management of resources, with the minimum amount of conflict between resources.

Recommendation: Develop mitigation, corrective measures, and management plans to address adverse impacts that are documented through monitoring studies that assess the impacts of current management actions or resource users on watershed conditions and water quality as they affect fisheries and wildlife.

Rationale: This will provide for effective management of watershed, water quality, and related fishery and wildlife resources, by ensuring that appropriate standards are maintained.

Recommendation: Consolidate scattered tracts of public land and block up with the Big Gumbo Management Area. Expand the allotment management plans (AMPs) to include all contiguous public lands.

Rationale: Consolidation of scattered public lands with the existing block of public lands in the Big Gumbo Management Area will result in a more manageable unit for protection and enhancement of wildlife habitat. Wildlife habitat values in a larger management unit would be less susceptible to unfavorable impacts from land use changes. Consolidation and blocking will also eliminate the problems associated with management of isolated tracts. Additional lands added to the management area will allow for more effective management of habitat for pronghorn, mule deer, sage grouse, and other wildlife species. Placing these lands in an established grazing system will allow better control of live-

stock use on lands presently not under management systems, more flexibility in administering the AMPs, and better management potential for wildlife habitat.

RECREATION

Objective: Enhance the recreational potential in the area. This enhancement should be done to allow a maximum of use while continuing grazing and other activities in the area.

Rationale: The Big Gumbo Area has had some limited use by hunters in the past. That use may be increased by the distribution of maps of the area. It can also be improved by signs in the area that point out the location of the Big Gumbo. Additionally, it may be possible to acquire parcels of land between the Big Gumbo and the Little Missouri River. This would provide access to the river and would enhance the recreational value of the area.

Recommendation: Signing will be used to note the presence of BLM lands where significant public use will be expected. A map of the area will be prepared to show BLM land locations. This map will be made available to the general public.

Rationale: The public is generally not aware of the location of BLM lands. The signs and map will increase public awareness of the lands, and reduce trespass on adjoining private lands.

SUMMARY

A total of 34,172.62 acres of public land is included in the Southwest Management Framework Plan. The Big Gumbo Management Area accounts for 22,187.15 acres of this total. The remaining 11,985.47 acres consist of scattered tracts in Adams (80 acres), Billings (680 acres), Grant (604.31 acres), and Bowman (10,621.16 acres) counties. Lands in the Big Gumbo Management Area will remain in federal ownership and managed for multiple use. The scattered tracts are classified in three categories according to criteria in the State Director Guidance: retain; disposal (sale, transfer, exchange); and further study (see Table X). The option is retained on all tracts to reclassify them or change management based on new data or policy changes.

All mineral rights will be retained in federal ownership on tracts that are disposed of. Exploration and leasing for oil and/or gas on all tracts will continue to be allowed. Coal exploration will be allowed on a case-by-case basis. All other minerals will be made available for private industry, local governments, and private individuals on a case-by-case basis.

All public lands will remain open to rights-of-way applications. Unauthorized use will be eliminated through

the mechanisms identified in the State Director Guidance.

Grazing will continue to be allowed on scattered tracts already under lease and they will be managed at the custodial level. Where tracts under lease have been identified for disposal, the grazing lease may be modified or cancelled, as provided for under 43 CFR 4120.2-1(d) and 4130.2(d)(3). Tracts that are currently unleased for grazing and are categorized for disposal will be offered for short-term nonrenewable grazing leases and managed at the custodial level if they are still under BLM administration two years after the adoption of the MFP. All lands retained will be offered for grazing where applicable.

Lands with high resource values and good management potential and riparian areas will be retained by the BLM. Where further evaluation determines potential, lands will be acquired through exchange mechanisms, using disposal lands as an exchange base, to block up lands around tracts that are retained.

Management plans for wildlife, recreation and cultural resources, and watershed will be developed, where appropriate, to enhance resource values and benefits to the public.

**TABLE X
SURFACE LANDS CATEGORIZATION SUMMARY**

	Acreage
Total Acres of Public Land	34,172.62
Big Gumbo Management Area	22,187.15
Scattered Tracts	11,985.47
Adams County	80.00
Billings County	680.00
Bowman County	10,621.16
Grant County	604.31
Lands Categorized for Retention	26,514.59
Big Gumbo Management Area	22,187.15
Scattered Tracts	4,327.44
Lands Categorized for Further Study	520.00
Lands Categorized for Disposal	7,138.03 *
Acreage Identified for transfer to U.S. Forest Service	680.00
Acreage Identified for Sale/Exchange	6,458.03 **

*Approximately 1,300 acres are proposed for sale. The remainder is proposed for an exchange base or transfer.

**Less than 1 percent of the acreage identified for sale/exchange is located in high-moderate coal areas.

APPENDICES

APPENDIX A THE SPLIT ESTATE

In North Dakota there are over 4.2 million acres of federally owned minerals beneath nonfederal surface. This figure includes reservations involving coal, oil and gas, and other minerals, such as potash, uranium, and phosphate. Some of these reservations are for only one mineral, some are for certain combinations, and some are for all minerals.

The following is a brief account of the actions occurring early in the century that resulted in the separation of the mineral estate from the surface estate in large portions of the United States. Later actions that resulted in federal acquisition of minerals (approximately 300,000 acres in North Dakota—mostly a percentage ownership) are not discussed, but these acquisitions are included in the 4.2 million acre total.

As early as 1901, Congress was concerned with the problem of agricultural claims on lands believed to contain minerals. By 1905 Congress had become aware of widespread fraud involving these claims.

In 1906 two bills were introduced in Congress authorizing the president to reserve all coal and lignite found on the public lands for future disposal; however, neither of these bills was reported out of committee. Those supporting these bills were worried about the coal lands falling under the control of the monopolies. They were also concerned with the rate at which the Nation's fuels were being consumed.

President Theodore Roosevelt also voiced these concerns. In a message to the 59th Congress he pointed out that the amount of coal used in the most recent ten years was equal to that used during the preceding 50 years. "If we dispose of all the coal lands now we can be well assured that 25 years hence the generation then coming into manhood will regret our shortsightedness and lack of provision for the future," he warned.

Because Congress had not acted on the coal legislation, Roosevelt instructed the Secretary of Interior to withdraw the remaining public coal lands from homestead entry. Between July 26, 1906, and December 13, 1907, 66,938,800 acres of coal land were withdrawn by executive order, and on August 15, 1907, the first oil lands were withdrawn.

The withdrawal prevented those settlers who had selected coal and oil lands (prior to the withdrawal) from obtaining patents. In 1909, a law was enacted that allowed these settlers to obtain a patent to the lands with a reservation of the coal deposits to the United States. This was the first legislation establishing the separation policy.

The following Congressional actions followed the same concept and expanded the separation policy to cover more lands.

- 1910 Law enacted that allowed new agricultural entries on coal lands (with coal reserved to the United States).
- 1914 Law enacted that allowed agricultural entries on lands containing phosphate, nitrate, potash, oil, gas, and asphaltic minerals, with these minerals reserved to the United States.
- 1916 Stockraising Homestead Act passed. It required that all minerals be reserved to the United State, when federal lands pass into private ownership.

Most of the federal mineral reservations in North Dakota are in the western half of the State. There are two basic reasons for this: first, most of the land in the eastern half had already been settled—with patents grants—prior to the establishment of the separation policy, and much of the western half was settled after the policy was in effect; secondly, all of the significant coal resources are located in the western half of the State.

These federal reservations are checkerboarded among minerals owned by the State of North Dakota, railroads, and banks, as well as private individuals. North Dakota is not unique in this; for example, Montana and Wyoming contain even larger acreages of federally reserved minerals than North Dakota.

Note: Most of the above information was gathered from a paper entitled "The Separation of Surface Mineral Estates in Public Land Disposition," which was written in 1964 by Tadd Linsenmayer, who was then a research assistant in the Office of Chief of Legislation and Cooperative Relations, Bureau of Land Management.

APPENDIX B

SPLIT-ESTATE FEDERAL MINERALS-COAL ISSUES AND PLANNING CRITERIA

ISSUE	END PRODUCT	PLANNING CRITERIA
Development of federal coal resources can cause significant impacts to other resource values, such as wildlife, water, cultural resources, and scenery. Use of the land for roads, dwellings, cemeteries, parks, etc., can also be disrupted. Since almost all of the federal coal in the planning area underlies private surface, its development would affect surface owners.	Coal areas will be designated as being acceptable for further consideration for leasing. Areas to be excluded from leasing will be identified.	<ol style="list-style-type: none"> 1. Coal potential—Identify those portions of the planning area which are underlain by coal with a moderate or high potential for development by surface mining. 2. Unsuitability Criteria (see Appendix D) 3. Other Resource Trade-Offs 4. Surface Owner Consultation <p>The following are considered:</p> <ol style="list-style-type: none"> a. Number opposed to leasing; b. Acreage included under "opposed;" c. Percent of federal coal in tract area; d. Distribution pattern of federal coal; e. Distribution pattern of opposed comments; f. Location and number of existing federal leases; g. Location and number of private and state coal leases; h. Location and number of surface lease agreements on lands over federal coal. 5. Other Land Use Plans (Consistency)

SUBISSUES

<ol style="list-style-type: none"> 1. Agriculture <ol style="list-style-type: none"> a. Concern with the displacement of agricultural production resulting from the development of federal coal. b. Concern with the trade-off between agricultural and coal values. c. Concern with the effects of coal development on individual farm-ranch operations. 2. Air Quality <p>There is concern that mine-mouth coal conversion facilities will degrade air quality in the local or regional area.</p> 	<p>Potential impacts on agriculture are recognized as a public concern in the planning area. This concern will be addressed during activity planning, after delineation of proposed leasing tracts.</p>	<p>In the unit resource analyses* prepared for the McKenzie-Williams MFP an impact assessment focusing on agricultural and coal values is discussed generically, using currently published information. Detailed and site-specific agricultural impacts will be studied during activity planning, after potential leasing tracts have been identified.</p>
<ol style="list-style-type: none"> 2. Air Quality <p>There is concern that mine-mouth coal conversion facilities will degrade air quality in the local or regional area.</p> 	<p>Potential impacts on air quality are recognized as public concerns in the planning areas. The federal coal program provides for consideration of air quality concerns during activity planning, after delineation of proposed leasing tracts.</p>	<p>No planning criteria were developed for air quality, because it is not considered in the MFP decision.</p>

* Available for public inspection at the Dickinson District Office.

ISSUE	END PRODUCT	PLANNING CRITERIA
3. Oil and Gas Conflict	Identify oil and gas areas where coal leasing will be deferred.	Areas of significant oil and gas production should not be leased for coal mining until the petroleum is exhausted, unless it can be shown that conflicts between the two types of development can be mitigated. Areas of significant conflicts were determined after consultation with the Conservation Division of the U.S. Geological Survey, now a part of the BLM.
4. Reclamation of Agricultural Lands Concerns associated with the question of whether or not cropland and rangeland can be reclaimed to pre-mining productivity.	Reclamation is recognized as a public concern in the planning area. This subissue will be addressed during activity planning, after delineation of proposed leasing tracts.	County general soil surveys of North Dakota are the basis for a generalized evaluation of reclamation potential. Reclamation will be considered further during activity planning, but no final judgement on reclamation is rendered until mine palms have been evaluated.
5. Water Concern for the protection of water supplies.	Areas will be identified as follows: (1) exclude from leasing or mining; (2) study further; or (3) acceptable for further consideration for leasing.	Areas where data shows that an acceptable replacement water supply is not available will be excluded from leasing.
6. Social and Economic Concerns Coal development results in population increases that affect public finance capabilities, public service adequacy, lifestyles, and social structures.	This subissue is recognized as a public concern in the planning areas and will be addressed during activity planning, after delineation of proposed leasing tracts.	Social and economic impacts resulting from potential coal development are discussed generically in the Planning Area Analysis, using available published data and the comments received through public participation activities.
7. Woodland, Wetland, and Native Prairie These types of land provide unique and essential habitat for many wildlife species. There is concern over the potential loss of this habitat due to coal development.	The following options are available: (1) unsuitable for leasing or mining; (2) acceptable for further consideration for leasing pending further study; (3) acceptable only if appropriate mitigating measures are applied; (4) acceptable for further consideration for leasing.	To apply unsuitability criteria 9-15, essential wildlife habitat was identified through interpretation of color infrared aerial photos.

ISSUE	END PRODUCT	PLANNING CRITERIA
Oil and gas exploration, development and production conflicts with other land uses and causes impacts to other resources.	<p>Lease applications received on federal oil and gas parcels will be categorized into one of the following:</p> <ul style="list-style-type: none"> a. Do not lease; b. Lease with standard stipulations; c. Lease with standard and special stipulations. <p>These categorizations will be reviewed annually.</p>	<p>In processing the lease application the following are considered:</p> <ul style="list-style-type: none"> a. District Oil and Gas Programmatic Environmental Assessment; b. District overlay files; c. Interagency agreements; d. Correspondence between the Montana State Office and the Dickinson District Office. <p>During land use planning, information in the assessment and overlay files was updated.</p>
Rangeland management status needs to be determined and categorized. Impacts of livestock grazing on the rangeland resources need to be assessed.	<p>Categorize all grazing allotments into one of the following management categories: (1) improve, (2) maintain present status, (3) provide custodial management.</p> <p>Management alternatives will be developed for BLM surface. These alternatives will be addressed in the proposed District environmental assessment for grazing.</p>	<p>Criteria checklist developed by the District. Elements of the BLM Grazing Management Policy, and Rangeland Improvement Policy were used to evaluate all grazing allotments.</p> <p>Management alternatives listed in State Director Guidance* were addressed. Additional alternatives developed through the BLM planning system were also considered.</p>
Unleased (grazing) lands need to be brought under grazing management or excluded from unauthorized grazing.	<p>Initiate grazing leases on all lands determined to be suitable for grazing. Exclude or restrict grazing where it is unsuitable or undesired on land identified for retention under land base adjustment.</p>	<p>Identify current use. Identify management potential for grazing or other resources. Determine grazing capability and potential. Define other resource priorities that restrict or exclude grazing.</p>
Land base adjustments are needed in order to improve management efficiencies of Bureau resource programs.	<p>All public lands will be delineated into three general categories: (1) disposal (sale, transfer, or exchange); (2) retention; or (3) further study.</p>	<p>Lands identified for potential removal from the federal estate through sale, exchange, or transfer were evaluated according to land pattern review criteria listed in State Director Guidance.*</p>

*Distributed to the public upon request.

APPENDIX C

COAL POTENTIAL

HIGH COAL DEVELOPMENT

Potential

For inclusion into a high development potential tract an area must meet all of the following criteria:

1. The area must be underlain by one or more beds of coal with individual thicknesses of 5 ft. (1.5m) or more.
2. The area must be underlain by a sufficient quantity of 5 ft. (1.5m) or thicker coal beds to achieve a 9.2 or better mining ratio (10 to 1 stripping ratio).
3. There can be no more than 150 ft. (45.7m) of rock removed to recover the coal bed(s) under consideration.

MODERATE COAL DEVELOPMENT

Potential

For inclusion into a moderate potential tract an area must meet all of the following criteria:

1. The area must be underlain by one or more beds of coal with individual thicknesses of 5 ft. (1.5m) or more.
2. The area must be underlain by a sufficient quantity of 5 ft. or thicker coal beds to have a mining ratio of 18.4 or less (20 to 1 or less stripping ratio).
3. There can be no more than 200 ft. (61.0m) of rock removed to recover the coal bed(s) under consideration.
4. The area must not be able to meet all three high development potential criteria.

LOW COAL DEVELOPMENT

Potential

For inclusion into a low potential tract an area must lie within the study area boundaries and fail to meet the high or moderate coal development potential criteria.

Criteria for assessing lands unsuitable for all or certain stipulated methods of coal mining.

Criterion Number 1. All Federal lands included in the following land systems or categories shall be considered unsuitable: National Park System, National Wildlife Refuge System, National System of Trails, National Wilderness Preservation System, National Wild and Scenic Rivers System, National Recreation Areas, lands acquired with money derived from the Land and Water Conservation Fund, National Forests and Federal lands in incorporated cities, towns and villages.

Exceptions. (i) A lease may be issued within the boundaries of any National Forest if the Secretary finds no significant recreational, timber, economic or other values which may be incompatible with the lease; and (A) surface operations and impacts are incident to an underground coal mine, or (B) where the Secretary of Agriculture determines, with respect to lands which do not have significant forest cover within those National Forests west of the 100th meridian, that surface mining may be in compliance with the Multiple-Use Sustained-Yield Act of 1960, the Federal Coal Leasing Amendments Act of 1976 and the Surface Mining Control and Reclamation Act of 1977. (ii) A lease may be issued within the Custer National Forest with the consent of the Department of Agriculture as long as no surface coal mining operations are permitted.

Exemptions. The application of this criterion to lands within the listed land systems and categories is subject to valid existing rights, and does not apply to surface coal mining operations existing on August 3, 1977. The application of the portion of this criterion applying to land proposed for inclusion in the listed systems does not apply to lands: to which substantial legal and financial commitments were made prior to January 4, 1977; on which surface coal mining operations were being conducted on August 3, 1977; or which include operations on which a permit has been issued.

Criterion Number 2. Federal lands that are within rights-of-way or easements or within surface leases for residential, commercial, industrial, or other public purposes. Federally owned surface shall be considered unsuitable.

Exceptions. A lease may be issued, and mining operations approved in such areas if the surface management agency determines that:

- (i) All or certain types of coal development (e.g., underground mining) will not interfere with the purpose of the right-of-way or easement; or
- (ii) The right-of-way or easement was granted for mining purposes; or
- (iii) The right-of-way or easement was issued for a purpose for which it is not being used; or
- (iv) The parties involved in the right-of-way or easement agree, in writing, to leasing; or
- (v) It is impractical to exclude such areas due to the location of coal and method of mining and such areas or uses can be protected through appropriate stipulations.

Exemptions. This criterion does not apply to lands: to which the operator made substantial legal and financial commitments prior to January 4, 1977; on which surface coal mining operations were being conducted on August 3, 1977; or which include operations on which a permit has been issued.

Criterion Number 3. Federal lands affected by section 522(e)(4) and (5) of the Surface Mining Control and Reclamation Act of 1977 shall be considered unsuitable. This includes lands within 100 feet of the outside line of the right-of-way of a public road or within 100 feet of a cemetery, or within 300 feet of any public building, school, church, community or institutional building or public park or within 300 feet of an occupied dwelling.

Exceptions. A lease may be issued for lands:

- (i) Used as mine access roads or haulage roads that join the right-of-way for a public road;
- (ii) For which the Office of Surface Mining Reclamation and Enforcement has issued a permit to have public roads relocated;
- (iii) If, after public notice and opportunity for public hearing in the locality, a written finding is made by the authorized officer that the interests of the public and the landowners affected by mining with 100 feet of a public road will be protected;

Exemptions. The application of this criterion is subject to valid existing rights, and does not apply to surface coal mining operations existing on August 3, 1977.

Criterion Number 4. Federal lands designated as wilderness study areas shall be considered unsuitable while under review by the Administration and the Congress for possible wilderness designation. For any Federal land which is to be leased or mined prior to completion of the wilderness inventory by the surface management agency, the environmental assessment or impact statement on the lease sale or mine plan shall consider whether the land possesses the characteristics of a wilderness study area. If the finding is affirmative, the land shall be considered unsuitable, unless issuance of noncompetitive coal leases and mining on leases is authorized under the Wilderness Act and the Federal Land Policy and Management Act of 1976.

Exemption. The application of this criterion to lands for which the Bureau of Land Management is the surface management agency and lands in designated wilderness areas in National Forests is subject to valid existing rights.

Criterion Number 5. Scenic Federal lands designated by visual resource management analysis as Class I (an area of outstanding scenic quality or high visual sensitivity) but not currently on the National Register of Natural Landmarks shall be considered unsuitable. A lease may be issued if the surface management agency determines that surface coal mining operations will not significantly diminish or adversely affect the scenic quality of the designated area.

Exemptions. This criterion does not apply to lands: to which the operator made substantial legal and financial commitments prior to January 4, 1977; on which surface coal mining operations were being conducted on August 3, 1977; or which include operations on which a permit has been issued.

Criterion Number 6. Federal lands under permit by the surface management agency, and being used for scientific studies involving food or fiber production, natural resources or technology demonstrations and experiments shall be considered unsuitable for the duration of the study, demonstration or experiment, except where mining could be conducted in such a way as to enhance or not jeopardize the purposes of the study, as determined by the surface management agency, or where the principal scientific user or agency gives written concurrence to all or certain methods of mining.

Exemptions. This criterion does not apply to lands: to which the operator made substantial legal and financial commitments prior to January 4, 1977; on which surface coal mining operations were being conducted on August 3, 1977; or which include operations on which a permit has been issued.

Criterion Number 7. All districts, sites, buildings, structures and objects of historic, architectural, archeological or cultural significance on Federal lands which are included in or eligible for inclusion in the National Register of Historic Places, and an appropriate buffer zone around the outside boundary of the designated property (to protect the inherent values of the property that make it eligible for listing in the National Register) as determined by the surface management agency, in consultation with the Advisory Council on Historic Preservation and the State Historic Preservation Office shall be considered unsuitable.

Exceptions. All or certain stipulated methods of coal mining may be allowed if the surface management agency determines, after consultation with the Advisory Council on Historic Preservation and State Historic Preservation Office that the direct and indirect effects of mining, as stipulated, on a property in or eligible for the National Register of Historic Places will not result in significant adverse impacts to the property.

Exemptions. The application of this criterion to a property listed in the National Register is subject to valid existing rights, and does not apply to surface coal mining operations existing on August 3, 1977. The application of the criterion to buffer zones and properties eligible for the National Register does not apply to lands: to which the operator made substantial legal and financial commitments prior to January 4, 1977; on which surface coal mining operations were being conducted on August 3, 1977; or which include operations on which a permit has been issued.

Criterion Number 8. Federal lands designated as natural areas or as National Natural Landmarks shall be considered unsuitable.

Exceptions. A lease may be issued and mining operation approved in an area or site if the surface management agency determines that:

- (i) With the concurrence of the state, the area or site is of regional or local significance only;
- (ii) The use of appropriate stipulated mining technology will result in no significant adverse impact to the area or site; or
- (iii) The mining of the coal resource under appropriate stipulations will enhance information recovery (e.g., paleontological sites).

Exemptions. This criterion does not apply to lands: to which the operator made substantial legal and financial commitments prior to January 4, 1977; on which surface coal mining operations were being conducted on August 3, 1977; or which includes operations on which a permit has been issued.

Criterion Number 9. Federally designated critical habitat for threatened or endangered plant and animal species, and habitat for Federal threatened or endangered species which is determined by the Fish and Wildlife Service and the surface management agency to be of essential value and where the presence of threatened or endangered species has been scientifically documented, shall be considered unsuitable.

Exception. A lease may be issued and mining operations approved if, after consultation with the Fish and Wildlife Service, the Service determines that the proposed activity is not likely to jeopardize the continued existence of the listed species and/or its critical habitat.

Exemptions. This criterion does not apply to lands: to which the operator made substantial legal and financial commitments prior to January 4, 1977; on which surface coal mining operations were being conducted on August 3, 1977; or which include operations on which a permit has been issued.

Criterion Number 10. Federal lands containing habitat determined to be critical or essential for plant or animal species listed by a state pursuant to state law as endangered or threatened shall be considered unsuitable.

Exception. A lease may be issued and mining operations approved if, after consultation with the state, the surface management agency determines that the species will not be adversely affected by all or certain stipulated methods of coal mining.

Exemptions. This criterion does not apply to lands: to which the operator made substantial legal and financial commitments prior to January 4, 1977; on which surface coal mining operations were being conducted on August 3, 1977; or which include operations on which a permit has been issued.

Criterion Number 11. A bald or golden eagle nest or site on Federal lands that is determined to be active and an appropriate buffer zone of land around the nest site shall be considered unsuitable. Consideration of availability of habitat for prey species and of terrain shall be included in the determination of buffer zones. Buffer zones shall be determined in consultation with the Fish and Wildlife Service.

Exceptions. A lease may be issued if:

- (i) It can be conditioned in such a way, either in manner or period of operation, that eagles will not be disturbed during breeding season; or
- (ii) The surface management agency, with the concurrence of the Fish and Wildlife Service, determines that the golden eagle nest(s) will be moved.
- (iii) Buffer zones may be decreased if the surface management agency determines that the active eagle nests will not be adversely affected.

Exemptions. This criterion does not apply to lands: to which the operator made substantial legal and financial commitments prior to January 4, 1977; on which surface coal mining operations were being conducted on August 3, 1977; or which include operations on which a permit has been issued.

Criterion Number 12. Bald and golden eagle roost and concentration areas on Federal lands used during migration and wintering shall be considered unsuitable.

Exception. A lease may be issued if the surface management agency determines that all or certain stipulated methods of coal mining can be conducted in such a way, and during such periods of time, to ensure that eagles shall not be adversely disturbed.

Exemptions. This criterion does not apply to lands: to which the operator made substantial legal and financial commitments prior to January 4, 1977; on which surface coal mining operations were being conducted on August 3, 1977; or which include operations on which a permit has been issued.

Criterion Number 13. Federal lands containing a falcon (excluding kestrel) cliff nesting site with an active nest and a buffer zone of Federal land around the nest site shall be considered unsuitable. Consideration of availability of habitat for prey species and of terrain shall be included in the determination of buffer zones. Buffer zones shall be determined in consultation with the Fish and Wildlife Service.

Exception. A lease may be issued where the surface management agency, after consultation with the Fish and Wildlife Service, determines that all or certain stipulated methods of coal mining will not adversely affect the falcon habitat during the periods when such habitat is used by the falcons.

Exemptions. This criterion does not apply to lands: to which the operator made substantial legal and financial commitments prior to January 4, 1977; on which surface coal mining operations were being conducted on August 3, 1977; or which include operations on which a permit has been issued.

Criterion Number 14. Federal lands which are high priority habitat for migratory bird species of high Federal interest on a regional or national basis, as determined jointly by the surface management agency and the Fish and Wildlife Service, shall be considered unsuitable.

Exception. A lease may be issued where the surface management agency, after consultation with the Fish and Wildlife Service, determines that all or certain stipulated methods of coal mining will not adversely affect the migratory bird habitat during the periods when such habitat is used by the species.

Exemption. This criterion does not apply to lands: to which the operator made substantial legal and financial commitments prior to January 4, 1977; on which surface coal mining operations were being conducted on August 3, 1977; or which include operations on which a permit has been issued.

Criterion Number 15. Federal lands which the surface management agency and the state jointly agree are fish and wildlife habitat for resident species of high interest to the state and which are essential for maintaining these priority wildlife species shall be considered unsuitable. Examples of such lands which serve a critical function for the species involved include:

- (i) Active dancing and strutting grounds for sage grouse, sharp-tailed grouse and prairie chicken;
- (ii) Winter ranges most critical for deer, antelope and elk; and
- (iii) Migration corridors for elk.

A lease may be issued if, after consultation with the state, the surface management agency determines that all or certain stipulated methods of coal mining will not have a significant long-term impact on the species being protected.

Exemptions. This criterion does not apply to lands: to which the operator made substantial legal and financial commitments prior to January 4, 1977; on which surface coal mining operations were being conducted on August 3, 1977; or which include operations on which a permit has been issued.

Criterion Number 16. Federal lands in riverine, coastal and special floodplains (100-year recurrence interval) on which the surface management agency determines that mining could not be undertaken without substantial threat of loss of life or property shall be considered unsuitable for all or certain stipulated methods of coal mining.

Exemptions. This criterion does not apply to lands: to which the operator made substantial legal and financial commitments prior to January 4, 1977; on which surface coal mining operations were being conducted on August 3, 1977; or which include operations on which a permit has been issued.

Criterion Number 17. Federal lands which have been committed by the surface management agency to use as municipal watersheds shall be considered unsuitable.

Exception. A lease may be issued where the surface management agency in consultation with the municipality (incorporated entity) or the responsible governmental unit determines, as a result of studies, that all or certain stipulated methods of coal mining will not adversely affect the watershed to any significant degree.

Exemptions. This criterion does not apply to lands: to which the operator made substantial legal and financial commitments prior to January 4, 1977; on which surface coal mining operations were being conducted on August 3, 1977; or which include operations on which a permit has been issued.

Criterion Number 18. Federal lands with National Resource Waters, as identified by states in their water quality management plans, and a buffer zone of Federal lands 1/4 mile from the outer edge of the far banks of the water, shall be unsuitable.

Exception. The buffer zone may be eliminated or reduced in size where the surface management agency determines that it is not necessary to protect the National Resource Waters.

Exemptions. This criterion does not apply to lands: to which the operator made substantial legal and financial commitments prior to January 4, 1977; on which surface coal mining operations were being conducted on August 3, 1977; or which include operations on which a permit has been issued.

Criterion Number 19. Federal lands identified by the surface management agency, in consultation with the state in which they are located, as alluvial valley floors according to the definition in § 3400.0-5(a) of this title, the standards in 30 CFR Part 822, the final alluvial valley floor guidelines of the Office of Surface Mining Reclamation and Enforcement when published and approved state programs under the Surface Mining Control and Reclamation Act of 1977, where mining would interrupt, discontinue or preclude farming, shall be considered unsuitable. Additionally, when mining Federal land outside an alluvial valley floor would materially damage the quantity or quality of water in surface or underground water systems that would supply alluvial valley floors, the land shall be considered unsuitable.

Exemptions. This criterion does not apply to surface coal mining operations which produced coal in commercial quantities in the year preceding August 3, 1977, or which had obtained a permit to conduct surface coal mining operations.

Criterion Number 20. Federal lands in a state to which is applicable a criterion (i) proposed by that state, and (ii) adopted by rulemaking by the Secretary, shall be considered unsuitable.

Exceptions. A lease may be issued when:

- (i) Such criterion is adopted by the Secretary less than 6 months prior to the publication of the draft comprehensive land use plan or land use analysis plan, or supplement to a comprehensive land use plan, for the area in which such land is included; or
- (ii) After consultation with the state, the surface management agency determines that all or certain stipulated methods of coal mining will not adversely affect the value which the criterion would protect.

Exemptions. This criterion does not apply to lands: to which the operator made substantial legal and financial commitments prior to January 4, 1977; on which surface coal mining operations were being conducted on August 3, 1977; or which include operations on which a permit has been issued.

Underground mining exemption from criteria.

- (a) Federal lands with coal deposits that would be mined by underground mining methods shall not be assessed as unsuitable where there would be no surface coal mining operations, as defined in § 3400.0-5 of this title, on any lease, if issued.
- (b) Where underground mining will include surface operations and surface impacts on Federal lands to which a criterion applies, the lands shall be assessed as unsuitable unless the surface management agency finds that a relevant exception or exemption applies.

APPENDIX E

PUBLIC LAW 95-87—AUG. 3, 1977

91 STAT. 445

Public Law 95-87 95th Congress

An Act

To provide for the cooperation between the Secretary of the Interior and the States with respect to the regulation of surface coal mining operations, and the acquisition and reclamation of abandoned mines, and for other purposes.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That this Act may be cited as the "Surface Mining Control and Reclamation Act of 1977".

Aug. 3, 1977

[H.R. 2]

Surface Mining
Control and
Reclamation Act
of 1977.
30 USC 1201
note.

SURFACE OWNER PROTECTION

30 USC 1304.

SEC. 714. (a) The provisions of this section shall apply where coal owned by the United States under land the surface rights to which are owned by a surface owner as defined in this section is to be mined by methods other than underground mining techniques.

(b) Any coal deposits subject to this section shall be offered for lease pursuant to section 2(a) of the Mineral Lands Leasing Act of 1920, as amended.

(c) The Secretary shall not enter into any lease of Federal coal deposits until the surface owner has given written consent to enter and commence surface mining operations and the Secretary has obtained evidence of such consent. Valid written consent given by any surface owner prior to the enactment of this Act shall be deemed sufficient for the purposes of complying with this section.

(d) In order to minimize disturbance to surface owners from surface coal mining of Federal coal deposits and to assist in the preparation of comprehensive land-use plans required by section 2(a) of the Mineral Lands Leasing Act of 1920, as amended, the Secretary shall consult with any surface owner whose land is proposed to be included in a leasing tract and shall ask the surface owner to state his preference for or against the offering of the deposit under his land for lease. The Secretary shall, in his discretion but to the maximum extent practicable, refrain from leasing coal deposits for development by methods other than underground mining techniques in those areas where a significant number of surface owners have stated a preference against the offering of the deposits for lease.

(e) For the purpose of this section the term "surface owner" means the natural person or persons (or corporation, the majority stock of which is held by a person or persons who meet the other requirements of this section) who—

(1) hold legal or equitable title to the land surface;

(2) have their principal place of residence on the land; or personally conduct farming or ranching operations upon a farm or ranch unit to be affected by surface coal mining operations; or receive directly a significant portion of their income, if any, from such farming or ranching operations; and

(3) have met the conditions of paragraphs (1) and (2) for a period of at least three years prior to the granting of the consent.

In computing the three-year period the Secretary may include periods during which title was owned by a relative of such person by blood or marriage during which period such relative would have met the requirements of this subsection.

(f) This section shall not apply to Indian lands.

(g) Nothing in this section shall be construed as increasing or diminishing any property rights by the United States or by any other landowner.

30 USC 201.
Consent.

"Surface owner."

APPENDIX F

SURFACE OWNER CONSULTATION STATISTICS

		DEPOSITS		
		Elgin-New Leipzig, New England and Mott	Bowman- Gascoyne	Dickinson
I.	GENERAL INFORMATION			
	Number of surface owners over federal coal	527	99	99
	Number of surface owners who responded to survey	288	50	56
	Percentage of total	55%	51	57%
II.	OWNERS OPPOSED TO FEDERAL COAL LEASING (that would lead to mining coal under their lands)	Number	Number	Number
	Part or all of surface not leased for mining	160	11	30
III.	OWNERS OPPOSED BUT SURFACE LEASED FOR MINING ¹	42	10	9
IV.	OWNERS IN FAVOR OF FEDERAL COAL LEASING			
	Part of all surface not leased for mining	11	4	3
	Surface leased for mining	15	15	2
V.	SPLIT PREFERENCE			
	Leased	2	1	0
	Not leased	3	0	0
VI.	OWNERS RESPONDED BUT WERE UNDECIDED OR DID NOT STATE PREFERENCE			
	Part of all surface not leased for mining	36	5	8
	Surface leased for mining	19	4	4
	Split preference leased	0	0	0
	Split preference part leased	0	0	0
VII.	OWNERS FAILED TO RESPOND, NOT CONTACTED, OR NOT QUALIFIED ²			
	Owners could not be contacted or did not respond	239	49	42
	Owners not qualified	0	0	0

¹Where all of a surface owner's land over federal coal has been leased for mining, the surface owner cannot be counted as opposed, even if he has expressed opposition to mining (43 CFR 3420.2-3[e](2)).

²Surface owners who are obviously not qualified according to Public Law 95-87 (see Appendix E). No comprehensive effort was made to determine whether or not surface owners were qualified.

NOTE: The private surface lease—between a landowner and a coal company—should not be confused with a federal coal lease. Where the federal government owns the coal, the surface owner cannot lease the coal. The surface lease for coal mining is a consent to allow mining, and it stipulates the amount of money to be paid to the surface owner. The federal coal lease, on the other hand, covers only the coal, and it stipulates the royalty to be paid to the federal government. Sometimes a surface lease (for coal mining) is called a "coal lease," and the same form for leasing private coal or leasing the surface over federal coal may be used by industry.

APPENDIX G

LAND PATTERN REVIEW AND LAND ADJUSTMENTS*

The BLM is authorized to enter into land adjustments through the Federal Land Policy and Management Act of 1976 (FLPMA) and other public land laws. The principle also applies to adjustments in the mineral estate of lands, particularly where there is a split-estate situation with federally owned mineral estate and privately owned surface, or vice versa.

Major types of land adjustment concerning the BLM in the planning area are:

1. BLM/Forest Service jurisdictional transfer
2. State Exchange
3. Complex Multi-party Exchanges
4. Regular Private Exchange
5. Acquisition
6. Public Sale
7. Community Expansion
8. Withdrawals
9. Mineral Exchanges

In utilizing the mechanisms for land adjustment, the BLM should be especially concerned with improving land usage by the public, and improving management of public values and resources by the managing agency. This involves more than simply blocking up the land pattern and disposing of isolated parcels. The Bureau's adjustment decisions will be made after thorough analysis and study of land use potential, including the following long-term objectives for management.

Objectives

1. Identify and transfer those public lands which could attain a higher and better use in the private sector or if managed by another public agency.
2. Retain those public lands with identified public values; acquire (primarily by exchange) other lands critical to public land management objectives.
3. Adjust the BLM land pattern to get the most public value for the money invested.
4. Continue ongoing land adjustment projects, including in-lieu selections, state and other exchanges, BLM/FS jurisdictional study, etc.
5. Full disclosure and public review and involvement would be accomplished under the requirements of FLPMA, NEPA, and other related legislation.
6. Identify and adjust lands where that adjustment will satisfy the objectives of both the public and private sectors.

Public lands have been identified in three broad categories—Disposal (sale, transfer or exchange), Retention, and Further Study—to provide for the implementation of the long-term adjustment program. The

proposed program has four phases: (1) Develop criteria for categorization of public land. (2) Delineate present public lands into the three general categories. (3) Plan amendments and environmental analyses will be done on the categories. (These documents will be subject to public review, and a call for interest in exchanges or sales will be issued.) (4) Identify priority areas to begin sale or other disposals in 1984 and continuing.

This program is designed to meet FLPMA and NEPA requirements, and to use present BLM land use planning mechanisms effectively in reaching land adjustment decisions. The overall goal of the program is to improve public land management through a variety of methods, including sale, exchange, or other methods of transfer.

Land Pattern Review Criteria

The public lands subject to these criteria are those lands, minerals, or interests in land administered by BLM. Criteria are used in categorizing the public lands for retention, disposal, or further study. Criteria are also provided to facilitate the selection of lands to be received in exchanges or other types of acquisition. The criteria are designed to provide the manager flexibility in identifying circumstances which dictate the category in which lands can be placed.

A. Retention—These are lands which will remain in public ownership and be managed by BLM. BLM is interested in exchanges to improve manageability of areas with important public values. Although the underlying philosophy is long-term public ownership, minor adjustments involving sales and exchanges of lands may occur when the public interest is better served.

1. Wetlands and riparian areas under Executive Order 11990.
2. Areas of national economic significance including, but not limited to:
 - a. Designated Mineral Resource Areas where disposal of the surface would unnecessarily interfere with the logical development of the mineral estate, e.g., surface minerals, coal, phosphate, known geologic structures, etc.
3. Areas where management is cost-effective or lands containing other important characteristics and public values which can best be managed in public ownership by BLM, including but not limited to:
 - a. Strategic tracts along rivers, streams, lakes, ponds, springs, and trails;
 - b. Important hunting or fishing areas;
 - c. Recreation sites and areas;

*This is an edited version of State Director Guidance that has specific application to North Dakota.

4. Lands with a combination of broad multiple-use values which dictate they should be retained in public ownership and managed by BLM.

5. Areas where future plans will lead to further consolidation and improvement of land patterns and reduce the costs of management.

6. Public lands withdrawn by the BLM or other federal agency for which the purpose of the withdrawal remains valid and the resource uses can be managed by BLM concurrently.

7. Public lands which provide public access and contain previously mentioned public values which, when considered together, warrant their retention.

B. Disposal—These are lands identified for potential removal from public ownership through sale or exchange, or through transfer to federal, state, county or local public entities. In addition to land internally identified for disposal, BLM will respond to proposals from the public. Disposal decisions will be made in the public interest based upon the following criteria:

1. Lands specifically identified through land use plans for sale, exchange, transfer or Recreation and Public Purposes Act applications.

2. Lands of limited public value.

3. Widely scattered parcels which are difficult for BLM to manage with anything beyond minimal custodial administration.

4. Lands with high public values proper for management by other federal agencies, or state or local government. Incorporate, when applicable, the objectives of the Interior Secretary's Good Neighbor Policy.**

5. Lands which will serve important public objectives (such as community expansion) as provided in the Federal Land Policy and Management Act (FLPMA) Sec. 203(a)(3).

6. Lands where disposal would aid in aggregating or repositioning other public lands or public land resource values in retention areas to facilitate national, state, and local objectives.

7. Lands with long-term unauthorized use problems, and which are not required for specific public purposes.

8. Lands where disposal would increase the range of economic opportunities provided to the general public.

9. Lands in which the highest value or most appropriate long-term use is agriculture, or commercial or industrial development.

10. Lands involved in BLM/FS jurisdictional transfer, state indemnity selections and ongoing exchanges.

C. Further Study—Lands that fail to clearly meet either retention or disposal criteria will be subject to further study. Lands in this category will include:

1. Lands where disposition would pose questions as to consistency with other federal, state, local government or tribal land use plans.

2. Lands under withdrawal review.

3. Lands where less than full fee conveyance would reserve specifically identified significant public values to protect public interest.

4. Lands where management is not cost-effective, but not clearly negative, and where multiple-use values are marginal.

5. Lands where cooperative management best serves the public interest.

6. Lands with potential for future public use—based on developing needs.

7. Lands with potential for transfer under the Good Neighbor program.

8. Lands in areas of public access deficiencies.

D. Selection Criteria—Used to evaluate proposals which would result in the transfer of lands or minerals to the Bureau of Land Management through exchange or other transactions.

These criteria help to assure that any BLM decision to acquire a tract of land provides significant public benefits. The criteria range from "general" standards, against which to evaluate all proposals, to "specific" guidelines covering the selected or prioritized program areas.

These standards are designed to provide consistent direction, while allowing the line manager flexibility to meet local, state, and national needs.

General Criteria

All proposals will be evaluated to determine if the selected lands would:

1. Facilitate access to areas retained for long-term public use.

2. Enhance congressionally designated areas, rivers, or trails

3. Be in or near "retention" areas. Acquisition in "Further Study" areas or "disposal" areas will only be considered if the action leads to and/or facilitates long-term needs or program objectives.

**The Secretary's program inviting state governors to participate in the nomination of federal lands needed by state and local governments and to expedite their transfer under the Recreation and Public Purposes Act.

4. Facilitate national, state and local BLM priorities or mission statement needs.
5. Facilitate implementation and/or be consistent with BLM land use and activity plans.
6. Stabilize or enhance local economies or values.
7. Meet long-term public land management goals, as opposed to short-term goals.
8. Be of sufficient size to improve use of adjoining public lands or, if isolated, large enough in scale to allow the identified potential public land use.
9. Allow more diverse use, more intensive use, or a change in uses to better fulfill the Bureau's mission.
10. Maintain or enhance important and recognized public land values. Especially noteworthy are identified, designated, special, or high interest value areas.
11. Enhance the opportunity for new or emerging public land uses or values.
12. Contribute to a wide spectrum of uses or a large number of public land users.
13. Facilitate management practices, uses, scale of operations or degrees of management intensity that are viable under economic program efficiency standards.
14. Secure for the public significant water-related land interests. These interests will include lake shore, river front, stream, pond, or spring sites.

GLOSSARY

ACTIVITY PLANNING—Site-specific planning which precedes actual development. This is the most detailed level of BLM planning.

ALLUVIAL VALLEY FLOORS—The definition of this phrase as used for surface mining control and reclamation as stated in Public Law 95-87, August 3, 1977 [Sec. 701(1)] is:

"Alluvial valley floors" means the unconsolidated stream land deposits holding streams where water availability is sufficient for subirrigation or flood irrigation agricultural activities but does not include upland areas which are generally overlain by a thin veneer of colluvial deposits composed chiefly of debris from sheet erosion, deposits by unconcentrated runoff or slope wash, together with talus, other mass movement accumulation and wind-blown deposits.

AQUIFER—A rock formation, group of rock formations or part of a rock formation that contains enough water-saturated permeable material to yield water to a spring or well.

FEDERAL LAND POLICY AND MANAGEMENT ACT OF 1976 (FLPMA)—Public Law 94-579. October 21, 1976, often referred to as the BLM's "Organic Act," which provides the majority of the BLM's legislated authority, direction, policy and basic management guidance.

HABITAT—A specific set of physical conditions that surround a species, group of species or a large community. In wildlife management, the major constituents of habitat are considered to be food, water, cover and living space.

MITIGATION MEASURES—Methods or procedures committed to by BLM for the purpose of reducing or lessening the impacts of an action.

MULTIPLE USE—Balanced management of the various surface and subsurface resources, with permanent impairment of the productivity of the land, that will best meet present and future needs.

RECREATION AND PUBLIC PURPOSES ACT (R&PP ACT)—This act authorizes the Secretary of the Interior to lease or convey public lands for recreational and public purposes under specified conditions of states or their political subdivisions, and to nonprofit corporations and associations.

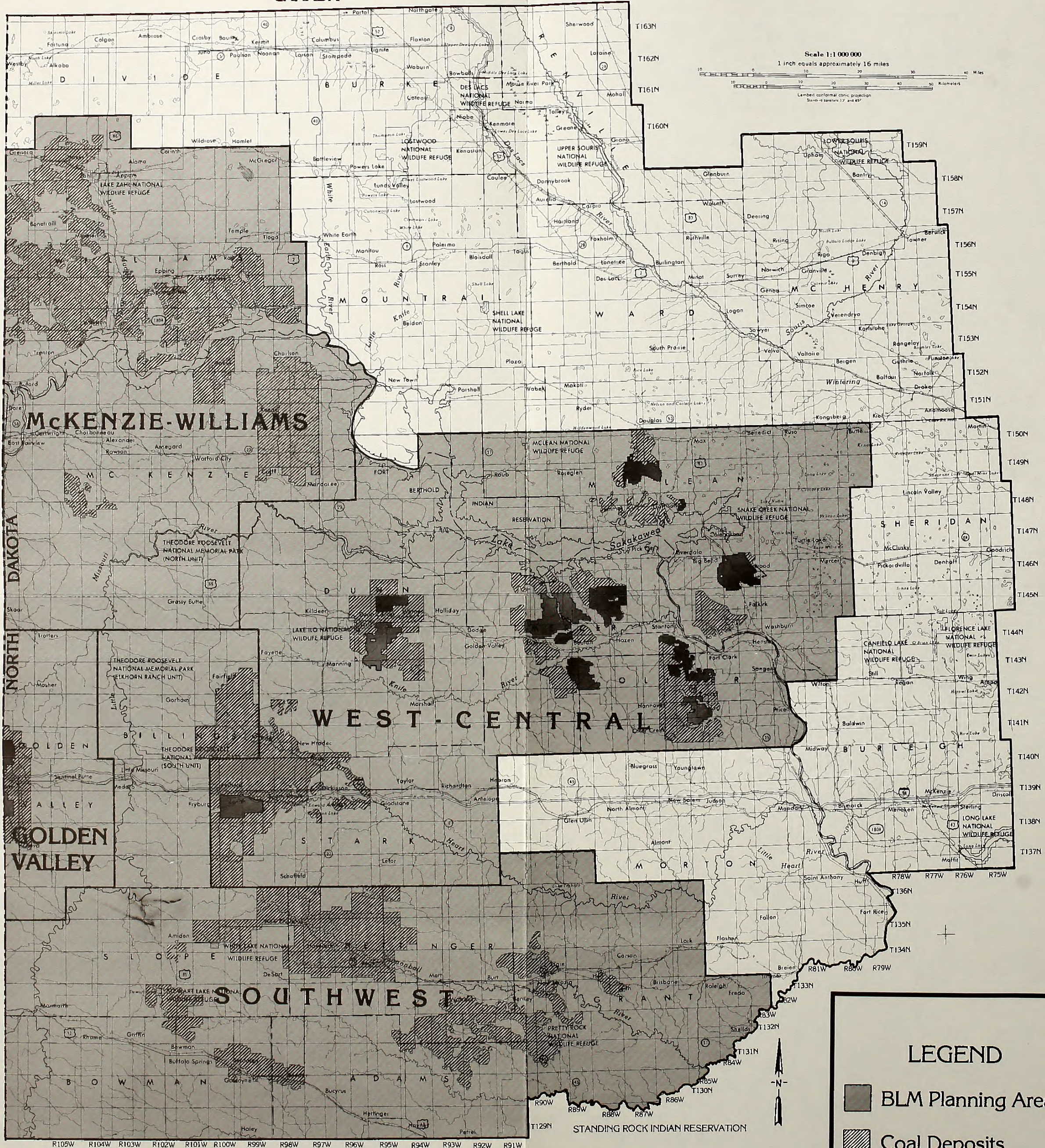
STATE DIRECTOR GUIDANCE—This document, published in April 1983, provides direction and policy interpretations for BLM personnel in Montana and the Dakotas. It also defines the major BLM planning goals, priorities and constraints within the 3-state area. The document is available to the public upon request.

SURFACE MINING CONTROL AND RECLAMATION ACT OF 1977 (SMCRA)—Public Law 95-87, August 3, 1977—This law provides for: (1) surface coal mining using methods which will protect the environment and the rights of surface owners over Federally reserved coal; (2) reclamation of mined land as contemporaneously as possible with mining operations; (3) reclamation of previously abandoned mine areas.

UNIT RESOURCE ANALYSIS (URA)—A comprehensive display of physical resource data and an analysis of the current use, production, condition and trend of the resources and the potentials and opportunities within a planning unit, including a profile of ecological values.

WATERSHED—All lands which are enclosed by a continuous hydrologic drainage divide and lie upslope from a specified point on a stream.

CANADA



BLM PLANNING AREAS

R 106 W

R 105 W

R 104 W

R 103 W

R 102 W

R 101 W

R 100 W

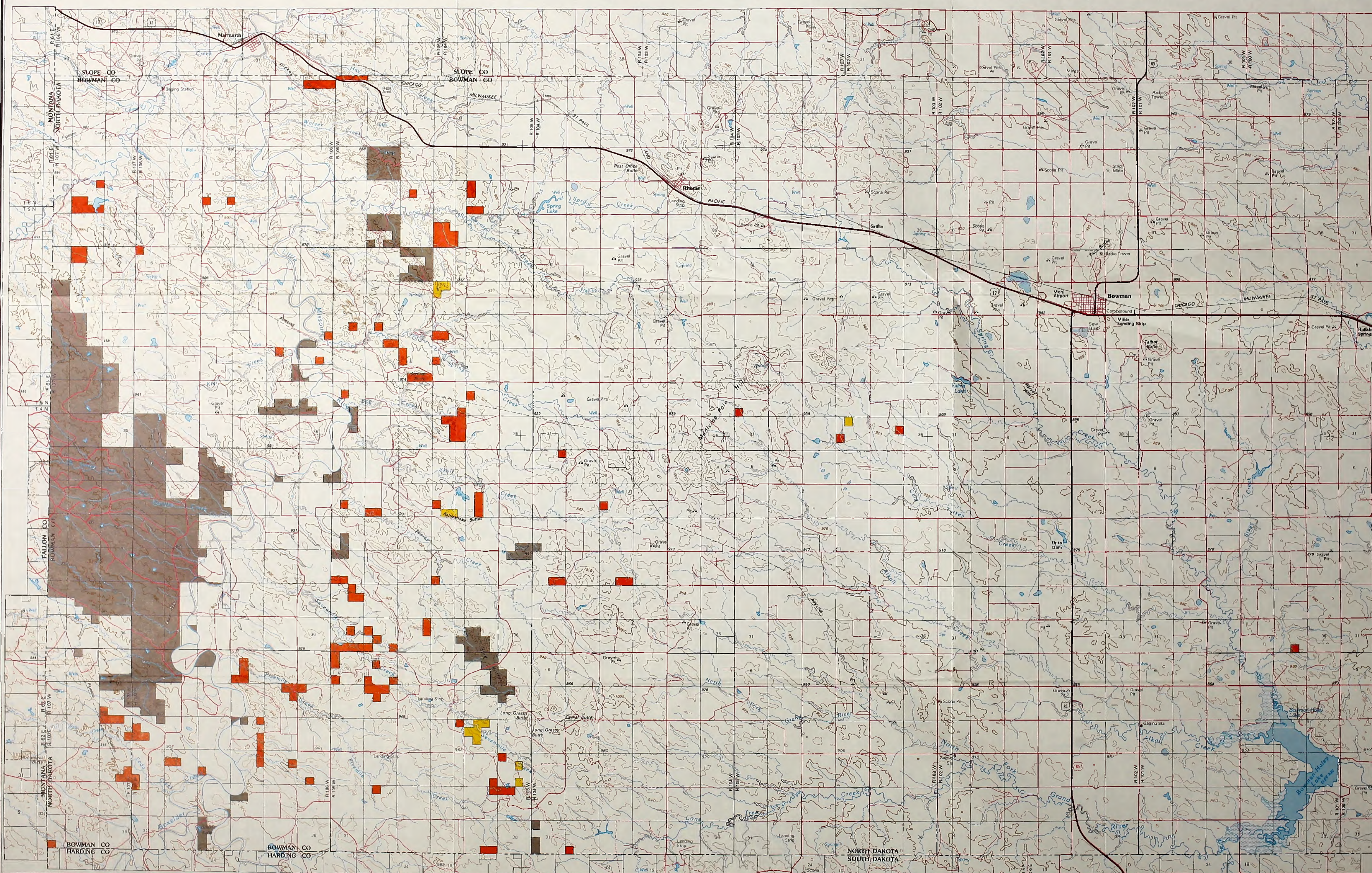
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T 131 N

T 130 N

T 129 N

**LEGEND**

- PROPOSED RETENTION CATEGORY
- PROPOSED DISPOSAL CATEGORY
- FURTHER STUDY CATEGORY

SCALE 1:100 000
1 CENTIMETER ON THE MAP REPRESENTS 1 KILOMETER ON THE GROUND
CONTOUR INTERVAL 20 METERS



5/25/83

UNITED STATES DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

CATEGORIZATION OF PUBLIC LANDS IN BOWMAN COUNTY

Form 1279-3
(June 1984)

BORROWER

HD

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Southwest North Da

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BORROWER

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